



## DEPARTMENT OF ENVIRONMENTAL QUALITY

KATHLEEN BABINEAUX BLANCO

GOVERNOR

MIKE D. McDANIEL, Ph.D.

SECRETARY

Certified Mail No.

Activity No.: PER20030002

Agency Interest No. 3400

Mr. Wade L. Alleman  
Plant Manager  
Occidental Chemical Corporation - Geismar Plant  
P.O. Box 227  
Geismar, LA 70734-0227

RE: Part 70 Operating Permit Renewal; F-1 Hex Furnace; Occidental Chemical Corporation –  
Geismar Plant; Geismar; Ascension Parish; Louisiana

Dear Mr. Feeney:

This is to inform you that the permit renewal for the above referenced facility has been approved under LAC 33:III.501. The permit is both a state preconstruction and Part 70 Operating Permit. The submittal was approved on the basis of the emissions reported and the approval in no way guarantees the design scheme presented will be capable of controlling the emissions as to the types and quantities stated. A new application must be submitted if the reported emissions are exceeded after operations begin. The synopsis, data sheets and conditions are attached herewith.

It will be considered a violation of the permit if all proposed control measures and/or equipment are not installed and properly operated and maintained as specified in the application.

Operation of this facility is hereby authorized under the terms and conditions of this permit. This authorization shall expire at midnight on the \_\_\_\_\_ of \_\_\_\_\_, 2012, unless a timely and complete renewal application has been submitted six months prior to expiration. Terms and conditions of this permit shall remain in effect until such time as the permitting authority takes final action on the application for permit renewal. The permit number and agency interest number cited above should be referenced in future correspondence regarding this facility.

Done this \_\_\_\_\_ day of \_\_\_\_\_, 2007.

Permit No.: 2922-V0

Sincerely,

Chuck Carr Brown, Ph.D.  
Assistant Secretary  
CCB: kap

c: EPA Region VI

**ENVIRONMENTAL SERVICES**  
PO BOX 4313, BATON ROUGE, LA 70821-4313  
P:225-219-3181 F:225-219-3309  
[WWW.DEQ.LOUISIANA.GOV](http://WWW.DEQ.LOUISIANA.GOV)

**PUBLIC NOTICE**  
**LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY (LDEQ)**  
**OCCIDENTAL CHEMICAL CORPORATION - GEISMAR PLANT**  
**F-1 HEX FURNACE**

**PROPOSED PART 70 AIR OPERATING PERMIT RENEWAL AND MODIFICATION**

The LDEQ, Office of Environmental Services, is accepting written comments on a proposed Part 70 Air Operating Permit renewal and modification for Occidental Chemical Corporation - Geismar Plant, P.O. Box 227, Geismar, Louisiana 70734, for the F-1 Hex Furnace. **The facility is located at 8318 Ashland Road in Geismar, Ascension Parish.**

Occidental Chemical Corporation (Occidental) owns and operates an industrial organic and inorganic chemicals manufacturing facility (formerly the Vulcan Chemicals (Vulcan) - Geismar Plant) in Geismar, Louisiana. On June 7, 2005, Basic Chemicals Company, L.L.C. (Basic), a wholly owned subsidiary of Occidental Chemical Corporation, acquired ownership of the Vulcan facility. On January 1, 2007, the name of the Geismar Plant was changed from Basic Chemicals Company, L.L.C. – Geismar Plant to Occidental Chemical Corporation – Geismar Plant. Occidental currently operates the Geismar Plant under Consolidated Part 70 Air Permit No. 0180-00011-V3 issued to Vulcan on April 19, 2001, Part 70 Air Permit No. 2821-V0 for the Steam Generating Unit issued to Vulcan on December 12, 2002, and Part 70 Air Permit No. 2923-V0 for the Offsites Area issued to Basic on November 20, 2006. Consolidated Air Permit No. 0180-00011-V3 contains permitting requirements for the Caustic/Chlorine Process Units, the F-1 Hex Furnace, and the Chlorinated Organic Units. This permit renewal addresses the permitting requirements for the F-1 Hex Furnace only.

In this proposed Part 70 air permit renewal, Occidental requested to:

1. Separate the Consolidated Part 70 Air Permit (Permit No. 0180-00011-V3 issued on April 19, 2001) into four separate Part 70 air permits (Caustic/Chlorine Process Units, F-1 Hex Furnace, Offsites Area, and Chlorinated Organic Units). This permit addresses the permitting requirements for the F-1 Hex Furnace.
2. Update emission source calculation methodologies and site-specific source data.
3. Propose changes to allow the Vent Collection Drum, D-35, formerly part of the MCF-II Unit which has been decommissioned, to route the EDC Units' MCI Reactor Vent to the F-1 Hex Furnace during outages of the F-2 Oxy Vent Furnace, the primary vent control device.
4. Update the facility's General Condition XVII and Insignificant Activities Lists.
5. Modify and/or remove some State-Only Specific Conditions contained in the current Title V air permit. State-Only Specific Condition Nos. 1, 2, 4, 8, 10, and 16 of the current Title V air permit were not included in this permit since they are currently contained in and enforced in the Hazardous Waste Permit, Permit No. LAD092681824 issued on November 24, 1995. State-Only Specific Condition No. 9 was modified by removing the following operating conditions which are either contained in the Hazardous Waste Permit or are unjustifiable, and leaving the ones not identical or not listed in the Hazardous Waste Permit: Combined Feed, Total Chlorine Feed, Total Bromine Feed, Stack CO Concentration, Stack O<sub>2</sub> Concentration, T-10 Scrubber Bottoms Temperature, and Hex Reboiler Temperature. State-Only Specific Condition No. 12 was modified by removing items 1 through 6 and 8 (which are contained in the Hazardous Waste Permit) and leaving item 7 (which is not listed in the Hazardous Waste Permit). Specific Condition No. 13 was modified by requiring an analysis of the waste feed to the furnace annually, as per the Hazardous Waste Permit, instead of semi-annually as required in the current Title V air permit; no justification was found for requiring the semi-annual analysis..

6. Incorporate emissions into this permit from Compliance Order AE-CN-05-0237 issued to Basic on March 13, 2006. The Compliance Order addressed emissions which were not included in the initial Part 70 operating permit issued to Vulcan on October 5, 1998 .

This permit does not include any modifications to the F-1 Hex Furnace, with the exception of using the Vent Collection Drum, D-35, to route the EDC Units' MCI Reactor Vent to the F-1 Hex Furnace during outages of the F-2 Oxy Vent Furnace, the primary vent control device. Because there is no significant increase in emissions associated with the proposed project, a Prevention of Significant Deterioration (PSD) Review and a Non-Attainment New Source Review (NNSR) are not required for this permit. The changes in emissions below are due to the reconciliation of emissions where necessary based on updated emission factors, calculation methodologies, etc., and to the inclusion of emissions from Compliance Order AE-CN-05-0237.

Estimated emissions in tons per year (TPY) for the F-1 Hex Furnace are as follows:

| Pollutant        | Before | After | Change  |
|------------------|--------|-------|---------|
| PM <sub>10</sub> | 2.50   | 3.36  | + 0.86  |
| SO <sub>2</sub>  | < 0.01 | 0.04  | + 0.04  |
| NO <sub>x</sub>  | 32.01  | 10.53 | - 21.48 |
| CO               | 0.70   | 0.31  | - 0.39  |
| VOC              | 0.93   | 0.39  | - 0.54  |

A technical review of the working draft of the proposed permit was submitted to the facility representative and the LDEQ Surveillance Division. Any remarks received during the technical review will be addressed in the "Worksheet for Technical Review of Working Draft of Proposed Permit". All remarks received by LDEQ are included in the record that is available for public review.

Written comments, written requests for a public hearing or written requests for notification of the final decision regarding this permit action may be submitted to Ms. Soumaya Ghosn at LDEQ, Public Participation Group, P.O. Box 4313, Baton Rouge, LA 70821-4313. **Written comments and/or written requests must be received by 12:30 p.m., Thursday, March 15, 2007.** Written comments will be considered prior to a final permit decision.

If LDEQ finds a significant degree of public interest, a public hearing will be held. LDEQ will send notification of the final permit decision to the applicant and to each person who has submitted written comments or a written request for notification of the final decision.

The permit application, draft Part 70 air permit renewal, Statement of Basis, Worksheet for Technical Review of Working Draft of Proposed Permit, and environmental impact questions are available for review at the LDEQ, Public Records Center, Room 127, 602 North 5<sup>th</sup> Street, Baton Rouge, LA. Viewing hours are from 8:00 a.m. to 4:30 p.m., Monday through Friday (except holidays). **The available information can also be accessed electronically on the Electronic Document Management System (EDMS) on the DEQ public website at [www.deq.louisiana.gov](http://www.deq.louisiana.gov).**

Additional copies may be reviewed at the Ascension Parish Library - Gonzales Branch, 708 South Irma Boulevard, Gonzales, LA .

Inquiries or requests for additional information regarding this permit action should be directed to Kyle A. Prestenbach, LDEQ, Air Permits Division, P.O. Box 4313, Baton Rouge, LA 70821-4313, phone (225) 219-3132.

Persons wishing to be included on the LDEQ permit public notice mailing list or for other public participation related questions should contact the Public Participation Group in writing at LDEQ, P.O. Box 4313, Baton Rouge, LA 70821-4313, by email at [maillistrequest@ldeq.org](mailto:maillistrequest@ldeq.org) or contact the LDEQ Customer Service Center at (225) 219-LDEQ (219-5337).

**Permit public notices including electronic access to the proposed permit and statement of basis** can be viewed at the LDEQ permits public notice webpage at [www.deq.state.la.us/news/PubNotice/](http://www.deq.state.la.us/news/PubNotice/) and general information related to the public participation in permitting activities can be viewed at [www.deq.louisiana.gov/portal/tabcid/2198/Default.aspx](http://www.deq.louisiana.gov/portal/tabcid/2198/Default.aspx).

Alternatively, individuals may elect to receive the permit public notices via email by subscribing to the LDEQ permits public notice List Server at [http://www.state.la.us/ldbc/listservpage/ldeq\\_pn\\_listserv.htm](http://www.state.la.us/ldbc/listservpage/ldeq_pn_listserv.htm).

**All correspondence should specify AI Number 3400, Permit Number 2922-V0, and Activity Number PER20030002.**

**Publication date:** February 9, 2007.

**AIR PERMIT BRIEFING SHEET**  
**AIR PERMITS DIVISION**  
**LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY**

**F-1 HEX FURNACE**  
**AGENCY INTEREST NO.: 3400**  
**OCCIDENTAL CHEMICAL CORPORATION – GEISMAR PLANT**  
**GEISMAR, ASCENSION PARISH, LOUISIANA**

**I. Background**

Occidental Chemical Corporation (Occidental) owns and operates an industrial organic and inorganic chemicals manufacturing facility (formerly the Vulcan Chemicals – Geismar Plant (Vulcan)) in Geismar, Ascension Parish, Louisiana. On June 7, 2005, Basic Chemicals Company, L.L.C. (Basic), a wholly owned subsidiary of Occidental Chemical Corporation, acquired ownership of the Vulcan facility. On January 1, 2007, the name of the Geismar Plant was changed from Basic Chemicals Company, L.L.C. – Geismar Plant to Occidental Chemical Corporation – Geismar Plant. Occidental currently operates the Geismar Plant under Consolidated Part 70 Air Permit No. 0180-00011-V3 issued to Vulcan on April 19, 2001, Part 70 Air Permit No. 2821-V0 for the Steam Generating Unit issued to Vulcan on December 12, 2002, and Part 70 Air Permit No. 2923-V0 for the Offsites Area issued to Basic on November 20, 2006. The consolidated permit contains permitting requirements for the Caustic/Chlorine Process Units, the F-1 Hex Furnace, and the Chlorinated Organic Units. This permit addresses the renewal of the permitting requirements for the F-1 Hex Furnace. The F-1 Hex Furnace also operates under Hazardous Waste Permit No. LAD092681824 issued on November 24, 1995.

This is the Part 70 operating permit renewal for the F-1 Hex Furnace. Upon issuance, the requirements of this permit supercede those listed in Consolidated Part 70 Air Permit No. 0180-00011-V3 for the F-1 Hex Furnace.

**II. Origin**

Consolidated Air Permit No. 0180-00011-V0 was issued to Vulcan on October 4, 1998. As required by LAC 33:III.507.E.4, Vulcan submitted four timely and complete renewal applications and Emission Inventory Questionnaires (EIQs) on April 4, 2003, six months prior to the expiration of the permit. Four renewal applications were submitted because Vulcan requested a separation of the Consolidated Part 70 Air Permit into four individual unit specific Part 70 air permits, one each for the Caustic/Chlorine Process Units, the F-1 Hex Furnace, the Offsites Area, and the Chlorinated Organic Units.

Basic Chemicals Company, LLC acquired ownership and operation of the Vulcan facility on June 7, 2005. Basic submitted four revised renewal applications and Emission Inventory Questionnaires (EIQs) dated March 31, 2006, to reflect the recent ownership change and to incorporate updates to the renewal applications submitted by Vulcan on April 4, 2003. Each application addresses the renewal of the respective unit's Part 70 permitting requirements. This permit renewal addresses the permitting requirements for the F-1 Hex Furnace.

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**III. Description**

**Process Description**

The F-1 Hex Furnace is used to combust liquid and gaseous waste streams. It is also used as a secondary or backup vent control device for the F-2 Oxy Vent Furnace which is permitted in the Chlorinated Organic Units Title V air permit. The liquid waste streams include heavy ends from chlorinated solvent production, contaminated chloro-solvent products, phased organics from the Groundwater Treatment System, and contaminated vent recovery compressor oil. The gaseous vent streams include process vents from the production of chlorinated solvents and chlorine and vents from product storage and loading.

The streams are routed to the furnace's combustion chamber along with natural gas, air, and steam to complete the combustion process. After leaving the combustion chamber, the combustion products are routed to a waste-heat boiler, B-3. From the boiler, the gas is quenched and scrubbed in a series of towers, T-10 and T-11, respectively, to remove metals (iron), acid gas (HCl), and residual chlorine. After passing through the final scrubber, the vent stream is discharged to the atmosphere.

**Permit Description**

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State-Only Specific Condition No. 9 was modified by removing the following operating conditions which are either contained in the Hazardous Waste Permit or are unjustifiable, and leaving the ones not identical or not listed in the Hazardous Waste Permit: Combined Feed, Total Chlorine Feed, Total Bromine Feed, Stack CO Concentration, Stack O<sub>2</sub> Concentration, T-10 Scrubber Bottoms Temperature, and Hex Reboiler Temperature. State-Only Specific Condition No. 12 was modified by removing items 1 through 6 and 8 (which are contained in the Hazardous Waste Permit) and leaving item 7 (which is not listed in the Hazardous Waste Permit). Specific Condition No. 13 was modified by requiring an analysis of the waste feed to the furnace annually, as per the Hazardous Waste Permit, instead of semi-annually as required in the current Title V air permit; no justification was found for requiring the semi-annual analysis.

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| <b>VOC TAP Speciation (TPY)</b><br><b>LAC 33:III.Chapter 51 Regulated VOC TAPs</b> |               |              |               |
|--|---------------|--------------|---------------|
| <b>Pollutant</b>   | <b>Before</b> | <b>After</b> | <b>Change</b> |
| 1,1,2,2-Tetrachloroethane  | < 0.01        | < 0.01       | -             |
| 1,1,2-Trichloroethane  | < 0.01        | < 0.01       | -             |
| 1,2-Dibromoethane  | -             | < 0.01       | < 0.01        |
| 1,1-Dichloroethane   | < 0.01        | < 0.01       | -             |
| 1,2-Dichloroethane   | < 0.01        | 0.01         | + 0.01        |
| 1,2-Dichloropropane  | < 0.01        | < 0.01       | -             |
| 1,3-Dichloropropylene  | < 0.01        | -            | < 0.01        |
| Benzene  | -             | < 0.01       | < 0.01        |
| Carbon Tetrachloride   | < 0.01        | < 0.01       | -             |
| Chlorobenzene  | 0.02          | -            | - 0.02        |
| Chloroethane   | < 0.01        | < 0.01       | -             |
| Chloroform   | < 0.01        | < 0.01       | -             |
| Formaldehyde   | -             | < 0.01       | < 0.01        |
| Hexachloro-1,3-Butadiene   | < 0.01        | < 0.01       | -             |
| Hexachlorobenzene  | < 0.01        | < 0.01       | -             |
| Hexachloroethane   | -             | < 0.01       | < 0.01        |
| Hexane (N-)  | -             | 0.12         | + 0.12        |
| Methanol   | -             | < 0.01       | < 0.01        |
| Methyl Chloride  | < 0.01        | 0.01         | + 0.01        |
| Naphthalene  | -             | < 0.01       | < 0.01        |
| Trichloroethylene  | < 0.01        | < 0.01       | -             |
| Vinyl Chloride   | < 0.01        | < 0.01       | -             |
| Vinylidene Chloride  | < 0.01        | < 0.01       | -             |
| <b>Total VOC TAPs</b>  | <b>0.02</b>   | <b>0.16</b>  | <b>+ 0.14</b> |
| <b>Other VOC (TPY):</b>  |               |              | <b>0.23</b>   |

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**GEISMAR, ASCENSION PARISH, LOUISIANA**

| <b>Non-VOC TAP Speciation (TPY)</b><br><b>LAC 33:III.Chapter 51 Regulated Non-VOC TAPS</b> |               |              |               |
|--|---------------|--------------|---------------|
| <b>Pollutant</b>   | <b>Before</b> | <b>After</b> | <b>Change</b> |
| 1,1,1-Trichloroethane  | < 0.01        | < 0.01       | -             |
| Antimony   | < 0.01        | < 0.01       | -             |
| Arsenic  | < 0.01        | < 0.01       | -             |
| Barium   | 0.04          | < 0.01       | - 0.04        |
| Beryllium  | 0.01          | < 0.01       | - 0.01        |
| Cadmium  | 0.01          | < 0.01       | - 0.01        |
| Chlorine   | 2.18          | 2.27         | + 0.09        |
| Chromium   | 0.02          | 0.07         | + 0.05        |
| Cobalt Compounds   | -             | < 0.01       | < 0.01        |
| Copper   | -             | 0.09         | + 0.09        |
| Dichloromethane  | 0.03          | < 0.01       | - 0.03        |
| Hexachlorocyclopentadiene  | -             | < 0.01       | < 0.01        |
| Hydrochloric Acid  | 5.24          | 6.30         | + 1.06        |
| Lead Compounds   | 0.02          | 0.13         | + 0.11        |
| Manganese  | -             | 0.20         | + 0.20        |
| Mercury  | < 0.01        | 0.08         | + 0.08        |
| Nickel   | -             | 0.13         | + 0.13        |
| Polychlorinated Biphenyls  | -             | < 0.01       | < 0.01        |
| Selenium   | -             | < 0.01       | < 0.01        |
| Tetrachloroethylene  | < 0.01        | 0.01         | + 0.01        |
| Zinc   | -             | 0.07         | + 0.07        |
| <b>Total Non-VOC TAPs</b>  | <b>7.55</b>   | <b>9.35</b>  | <b>+ 1.80</b> |

**IV. Type of Review**

This permit was reviewed for compliance with 40 CFR 70, the Louisiana Air Quality Regulations, New Source Performance Standards (NSPS), and National Emission Standards for Hazardous Air Pollutants (NESHAP). Prevention of Significant Deterioration (PSD) regulations and Non-Attainment New Source Review (NNSR) regulations do not apply.

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The Occidental - Geismar Plant is a major source of toxic air pollutants (TAPs) pursuant to LAC 33:III.Chapter 51. The owner or operator of any major source that emits or is permitted to emit a Class I or Class II TAP at a rate equal to or greater than the minimum emission rate (MER) listed for that pollutant in LAC 33:III.5112, Table 51.1, shall control emissions of such TAPs to a degree that constitutes Maximum Achievable Control Technology (MACT). The following compounds are either Class I or Class II compounds, and are, facility-wide, emitted above their respective MERs: 1,1,2-trichloroethane, 1,2-dichloroethane, carbon tetrachloride, chlorobenzene, chloroform, dichloromethane, hexachloro-1,3-butadiene, tetrachloroethylene, and vinyl chloride. Sources emitting these pollutants must comply with MACT requirements. Facility-wide emissions of chlorine, hydrochloric acid, and sulfuric acid (Class III TAPs) are also above their respective MERs; MACT is not required for Class III or Supplemental TAPs, but compliance with all applicable provisions of LAC 33:III.Chapter 51 is required.

**V. Credible Evidence**

Notwithstanding any other provisions of any applicable rule or regulation or requirement of this permit that state specific methods that may be used to assess compliance with applicable requirements, pursuant to 40 CFR Part 70 and EPA's Credible Evidence Rule, 62 Fed. Reg. 8314 (Feb. 24, 1997), any credible evidence or information relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test or procedure had been performed shall be considered for purposes of Title V compliance certifications. Furthermore, for purposes of establishing whether or not a person has violated or is in violation of any emissions limitation or standard or permit condition, nothing in this permit shall preclude the use, including the exclusive use, by any person of any such credible evidence or information.

**VI. Public Notice**

A notice requesting public comment on the permit was published in *The Advocate*, Baton Rouge, on <date>, 2006, and in the *Gonzales Weekly*, Gonzales, on <date>, 2006. A copy of the public notice was mailed to concerned citizens listed in the Office of Environmental Services Public Notice Mailing List on <date>. The draft permit was also submitted to US EPA Region VI on <date>. All comments will be considered prior to the final permit decision.

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**VII. Effects on Ambient Air**

Dispersion Model(s) Used: <None>

| Pollutant | Time Period | Calculated Maximum Ground Level Concentration | Louisiana Air Quality Standard (NAAQS) |
|-----------|-------------|---|--|
| N/A       |             |   |  |

**VIII. General Condition XVII Activities**

| Activity ID No. | Activity   | Frequency of Activity |
|-----------------|--|-----------------------|
| 01-GCXVII       | Scrubbing Tower (T-10) Inspection/Packing Change Out Emissions | 2 events/yr           |
| 02-GCXVII       | F-1 Refractory Removal   | 2 events/yr           |
| 03-GCXVII       | Flame Arrestor Maintenance                                     | varies                |

| Activity ID No. | Total Annual Emissions (TPY) |                 |                 |    |        |            |
|-----------------|------------------------------|-----------------|-----------------|----|--------|------------|
|                 | PM <sub>10</sub>             | SO <sub>2</sub> | NO <sub>x</sub> | CO | VOC    | Other      |
| 01-GCXVII       | -                            | -               | -               | -  | -      | < 0.01 HCl |
| 02-GCXVII       | < 0.01                       | -               | -               | -  | -      | -          |
| 03-GCXVII       | -                            | -               | -               | -  | < 0.01 | -          |

**IX. Insignificant Activities**

| Description   | Max Rate (TPY) or Tank Capacity | Citation                |
|---|---------------------------------|-------------------------|
| Miscellaneous Equipment Maintenance   | -                               | LAC 33:III.501.B.5.B.3  |
| Surface coating of equipment during miscellaneous maintenance and construction activities | -                               | LAC 33:III.501.B.5.B.2  |
| D-25A HCl Acid Storage Tank   | 0.14 TPY HCl                    | LAC 33:III.501.B.5.D    |
| D-25B HCl Acid Storage Tank   | 0.14 TPY HCl                    | LAC 33:III.501.B.5.D    |
| D-25C HCl Acid Storage Tank   | 0.14 TPY HCl                    | LAC 33:III.501.B.5.D    |
| D-22 Caustic Surge Drum   | Caustic                         | LAC 33:III.501.B.5.B.40 |

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**AGENCY INTEREST NO.: 3400**  
**OCCIDENTAL CHEMICAL CORPORATION – GEISMAR PLANT**  
**GEISMAR, ASCENSION PARISH, LOUISIANA**

**X. Applicable Louisiana and Federal Air Quality Requirements**

| ID No.: | Description            | LAC 33:III.Chapter |   |    |    |    |      |       |      |      |      | 2147 | 2153 | 22   | 29* | 51* | 56  | 59* |
|---------|------------------------|--------------------|---|----|----|----|------|-------|------|------|------|------|------|------|-----|-----|-----|-----|
|         |                        | 5 <sup>1</sup>     | 9 | 11 | 13 | 15 | 2103 | 2104* | 2111 | 2113 | 2115 | 2122 | 2147 | 2153 | 22  | 29* | 51* | 56  |
| GRP032  | F1-UW F-1 Unit Wide    | 1                  | 1 | 1  | 1  |    |      |       | 1    |      |      |      |      |      | 3   | 1   | 1   | 1   |
| EQT299  | 100577 F-1 Hex Furnace |                    | 1 | 1  | 1  | 2  |      |       |      |      |      |      |      |      | 2   |     | 1   |     |

<sup>1</sup> LAC 33:III.501.C.6 citations are federally enforceable except when it specifically states that the regulation is State-Only.

\* The regulations indicated above are State-Only regulations.

**KEY TO MATRIX**

- 1 - The regulations have applicable requirements that apply to this particular emission source.  
- The emission source may have an exemption from control stated in the regulation. The emission source may not have to be controlled but may have monitoring, recordkeeping, or reporting requirements.
- 2 - The regulations have applicable requirements that apply to this particular emission source but the source is currently exempt from these requirements due to meeting a specific criterion, such as it has not been constructed, modified or reconstructed since the regulations have been in place. If the specific criteria changes the source will have to comply at a future date.
- 3 - The regulations apply to this general type of emission source (i.e. vents, furnaces, towers, and fugitives) but do not apply to this particular emission source.  
Blank – The regulations clearly do not apply to this type of emission source.

LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

F-1 HEX FURNACE  
AGENCY INTEREST NO.: 3400  
OCCIDENTAL CHEMICAL CORPORATION – GEISMAR PLANT  
GEISMAR, ASCENSION PARISH, LOUISIANA

X. Applicable Louisiana and Federal Air Quality Requirements

| ID No.: | Description            | 40 CFR 60 NSPS |   |   |   | 40 CFR 61 |   |   |   | 40 CFR 63 NESHAP |   |   |   | 40 CFR Part |   |   |   |   |   |   |   |   |   |   |   |
|---------|------------------------|----------------|---|---|---|-----------|---|---|---|------------------|---|---|---|-------------|---|---|---|---|---|---|---|---|---|---|---|
|         |                        | A              | D | D | D | N         | R | C | D | A                | F | M | V | F           | A | F | G | I | Y | E | F | Z | D | G | I |
| GRP032  | F1-UW F-1 Unit Wide    | a              | b | c | d | N         | R | C | D | A                | F | M | V | F           | A | F | G | I | Y | E | F | Z | D | G | I |
| EQT299  | 100577 F-1 Hex Furnace |                |   |   |   |           |   |   |   | 1                | 1 | 1 | 1 | 1           | 2 | 1 | 1 | 1 | 3 | 3 | 3 | 3 | 1 | 1 | 1 |

KEY TO MATRIX

- 1 - The regulations have applicable requirements that apply to this particular emission source.  
- The emission source may have an exemption from control stated in the regulation. The emission source may not have to be controlled but may have monitoring, recordkeeping, or reporting requirements
- 2 - The regulations have applicable requirements that apply to this particular emission source but the source is currently exempt from these requirements due to meeting a specific criterion, such as it has not been constructed, modified or reconstructed since the regulations have been in place. If the specific criteria changes the source will have to comply at a future date.
- 3 - The regulations apply to this general type of emission source (i.e. vents, furnaces, towers, and fugitives) but do not apply to this particular emission source.  
Blank – The regulations clearly do not apply to this type of emission source.

**LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY**

**F-1 HEX FURNACE**  
**AGENCY INTEREST NO.: 3400**  
**OCCIDENTAL CHEMICAL CORPORATION – GEISMAR PLANT**  
**GEISMAR, ASCENSION PARISH, LOUISIANA**

**XI. Explanation for Exemption Status or Non-Applicability of a Source**

| ID No: | Description         | Requirement  | Notes   |
|--------|---------------------|--|---|
| GRP032 | F1-UW F-1 Unit Wide | LAC 33:III.2153 Limiting Volatile Organic Compound (VOC) Emissions from Industrial Wastewater<br><br>LAC 33:III.5151.E Emission Standard for Asbestos – Standard for Manufacturing and Fabricating | <b>DOES NOT APPLY.</b><br>The F-1 Unit does not meet the definition of an affected source category as defined in LAC 33:III.2153.A. [LAC 33:III.2153.B]<br><br><b>DOES NOT APPLY.</b><br>The diaphragm cells use a non-asbestos type membrane (i.e. Polyramix) for the production of chlorine. Polyramix does not meet the definition of commercial asbestos as defined in LAC 33:III.5151.B.<br><br><b>DOES NOT APPLY.</b><br>The diaphragm cells use a non-asbestos type membrane (i.e. Polyramix) for the production of chlorine. Polyramix does not meet the definition of commercial asbestos as defined in 40 CFR 61.141. |
|        |                     | 40 CFR 61.144 (Subpart M)<br>National Emission Standard for Asbestos – Standard for Manufacturing  | <b>EXEMPT.</b><br>The F-1 Unit does not generate benzene containing waste. An initial report as required per 40 CFR 61.357(a) was submitted. There are not additional applicable requirements for this Subpart unless process changes at this unit are made that generate benzene containing waste. [40 CFR 61.340(b)]  |
|        |                     | 40 CFR 61 Subpart FF<br>National Emission Standard for Benzene Waste Operations  | <b>DOES NOT APPLY.</b><br>The F-1 Unit does not produce any chemicals or belong to any source categories as defined in 40 CFR 63.190(b)(1) through (6) that would make it a designated process subject to the requirements of this rule. [40 CFR 63.190(b)]   |
|        |                     | 40 CFR 63 Subpart I<br>National Emission Standards for Certain Hazardous Air Pollutants for Certain Processes Subject to the Negotiated Regulation for Equipment Leaks                             |   |

LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

F-1 HEX FURNACE  
 AGENCY INTEREST NO.: 3400  
 OCCIDENTAL CHEMICAL CORPORATION – GEISMAR PLANT  
 GEISMAR, ASCENSION PARISH, LOUISIANA

**XI. Explanation for Exemption Status or Non-Applicability of a Source**

| ID No:                | Description            | Requirement   | Notes  |
|-----------------------|------------------------|---|--|
| (continued)<br>GRP032 | F1-UW F-1 Unit Wide    | 40 CFR 63 Subpart YY<br>National Emission Standards for Hazardous Air Pollutants (NESHAP) for Source Categories: Generic Maximum Achievable Control Technology (MACT) Standards       | <b>DOES NOT APPLY.</b><br>The F-1 Unit does not meet any of the categories for an affected source as defined by 40 CFR 63.1103(a) through (h). [40 CFR 63.1100(a)]   |
| EQT299                | 100577 F-1 Hex Furnace | 40 CFR 63 Subpart ZZZZ<br>NESHAP for Stationary Reciprocating Internal Combustion Engines<br><br>LAC 33:III.1503.C<br>Emission Standards for Sulfur Dioxide<br>– Emission Limitations | <b>DOES NOT APPLY.</b><br>The F-1 Unit does not contain any reciprocating internal combustion engines (RICEs). [40 CFR 63.6585]<br><br><b>EXEMPT.</b><br>Units emitting less than 250 tons per year (TPY) of sulfur compounds measured as sulfur dioxide may be exempted from the 2,000 ppm(v) limitation by the administrative authority. [LAC 33:III.1503.C] |
|                       |                        |   | The F-1 Hex Furnace emits 0.04 TPY of sulfur dioxide.<br><br><b>DOES NOT APPLY.</b><br>Continuous monitoring is not required for sources emitting less than 100 TPY of sulfur dioxide into the atmosphere. [LAC 33:III.1511.A]   |
|                       |                        |   | Source emits 0.04 TPY of sulfur dioxide.<br><br><b>EXEMPT.</b><br>Boilers and industrial furnaces treating hazardous waste and regulated under LAC 33:V Chapter 30 or 40 CFR part 264, 265, or 266, including halogen acid furnaces and sulfuric acid regeneration furnaces are exempt from the requirements of this rule. [LAC 33:III.2201.C.19]              |
|                       |                        |   |  |

LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

F-1 HEX FURNACE  
 AGENCY INTEREST NO.: 3400  
 OCCIDENTAL CHEMICAL CORPORATION – GEISMAR PLANT  
 GEISMAR, ASCENSION PARISH, LOUISIANA

**XI. Explanation for Exemption Status or Non-Applicability of a Source**

| ID No:                | Description            | Requirement  | Notes  |
|-----------------------|------------------------|--|--|
| (continued)<br>EQT299 | 100577 F-1 Hex Furnace | 40 CFR 60 Subpart CCCC Standards of Performance for Commercial and Industrial Solid Waste Incineration Units for Which Construction Is Commenced After November 30, 1999 or for Which Modification or Reconstruction Is Commenced on or After June 1, 2001 | <b>DOES NOT APPLY.</b><br>Source does not meet the definition of a commercial and industrial solid waste incinerator (CISWI) as defined in 40 CFR 60.2265. Source is a halogen acid furnace which acts as a chemical recovery unit as defined in 40 CFR 60.2020(n)(6). Source is also regulated by 40 CFR 63 Subpart EEE. [40 CFR 60.2010(c)], [40 CFR 60.2555(g)(2)], [40 CFR 60.2555(n)]   |
|                       |                        | 40 CFR 60 Subpart DDDD Emissions Guidelines and Compliance Times for Commercial and Industrial Solid Waste Incineration Units that Commenced Construction On or Before November 30, 1999   | <b>DOES NOT APPLY.</b><br>Source does not meet the definition of a commercial and industrial solid waste incinerator (CISWI) as defined in 40 CFR 60.2875. Source is a halogen acid furnace which acts as a chemical recovery unit as defined in 40 CFR 60.2555(n)(6). Source is also regulated by 40 CFR 63 Subpart EEE. [40 CFR 60.2500], [40 CFR 60.2555(g)(2)], [40 CFR 60.2555(n)]  |
|                       |                        | 40 CFR 61 Subpart F National Emission Standard for Vinyl Chloride  | <b>EXEMPT.</b><br>This furnace is a backup control device for the F-2 Oxy Vent Furnace which is the primary control device for vents from the EDC Plant which are subject to 40 CFR 61 Subpart F. However, due to overlap with 40 CFR 63 Subpart G (HON), the owner or operator of any Group 1 process vent subject to this Subpart and to 40 CFR 63 Subpart G shall comply only with the provisions of 40 CFR 63 Subpart G. [40 CFR 63.110(f)(1)] |

**LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY**

**F-1 HEX FURNACE  
AGENCY INTEREST NO.: 3400  
OCCIDENTAL CHEMICAL CORPORATION – GEISMAR PLANT  
GEISMAR, ASCENSION PARISH, LOUISIANA**

The above table provides explanation for both the exemption status or non-applicability of a source cited by 2 or 3 in the matrix presented in Section X (Table 1) of this permit.

## STATE-ONLY SPECIFIC CONDITIONS

### F-1 HEX FURNACE

AGENCY INTEREST NO.: 3400

**BASIC CHEMICALS COMPANY, LLC – GEISMAR PLANT  
GEISMAR, ASCENSION PARISH, LOUISIANA**

1. The number of each type of component required to be monitored for each monitoring period under applicable leak detection and repair programs shall be reported to the LDEQ by inclusion with each periodic monitoring report. Fugitive emission piping components may be added to or removed from the permitted units, without triggering the need to apply for a permit modification, provided:
  - a. Changes in components involve routine maintenance, or are undertaken to address safety concerns, or involve small piping revisions with no associated emission increases except from the fugitive components themselves;
  - b. The changes do not involve any associated increase in production rate or capacity, or tie in of new or modified process equipment other than piping components;
  - c. Actual emissions following the changes will not exceed the emission limits contained in this permit; and
  - d. The components are promptly incorporated into any applicable leak detection and repair program.
2. The F-1 Hex Furnace, Emission Point Number (EPN) 100577, is a halogen acid furnace (HAF) subject to the halogen acid furnace requirements of 40 CFR 63.1218 of Subpart EEE (NESHAP for Hazardous Waste Combustors (HWC MACT)). The standards required by this rule are based on maximum achievable control technology (MACT). Compliance with the MACT performance standards and emission limits of this Subpart is determined by conducting comprehensive performance tests (CPTs) as required by 40 CFR 63.1207. Performance tests are also done to determine feed rate limits, operating parameter limits, and to demonstrate the performance of the continuous monitoring system as required by 40 CFR 63.1209.

The permittee shall be in compliance with the requirements of 40 CFR 63.1218, and the requirements referenced therein, by the compliance date, which is currently October 14, 2008. Within 90 days of completion of the CPT, the permittee shall postmark and submit to the LDEQ, a Notification of Compliance (NOC) documenting compliance with the emission standards and continuous monitoring system requirements, and identifying operating parameter limits under 40 CFR 63.1209. Upon review of the NOC by the LDEQ, the LDEQ shall issue the permittee a Finding of Compliance (FOC), a finding concerning compliance with the emission standards and other requirements of this Subpart as provided by 40 CFR 63.6(f)(3). It should be noted that upon postmark of the NOC, the permittee shall comply with all operating requirements specified in the NOC in lieu of the current permitted operating parameters, and that these operating requirements shall be federally enforceable.

Until completion of the CPT and submittal of the NOC by the permittee, the F-1 Hex Furnace (EIQ No. 100577) shall continue to operate within the operating parameters and limits (which

## STATE-ONLY SPECIFIC CONDITIONS

### F-1 HEX FURNACE

AGENCY INTEREST NO.: 3400

**BASIC CHEMICALS COMPANY, LLC – GEISMAR PLANT  
GEISMAR, ASCENSION PARISH, LOUISIANA**

were established by the last performance test conducted in 1990) listed below and in the Specific Requirements section of this permit, EQT299, as well as continue to operate within all furnace operating limits and standards in Hazardous Waste Permit No. LAD092681824, issued on November 24, 1995.

- A. Wet scrubbers shall be maintained and operated according to the manufacturer's recommendations and good operating practices. The furnace shall not be operated on waste feeds if required emission control equipment is inoperative or malfunctions except for short durations allowed by this permit.
- B. Hazardous waste feed shall be waste generated on site or material returned to Basic. The permittee shall only incinerate hazardous waste in the following list:
  - a. Heavy ends of distillation residues from carbon tetrachloride manufacture (hex waste);
  - b. Recovered groundwater phase;
  - c. D-163 brominated organic liquid purge;
  - d. D-29 laboratory organic sample waste;
  - e. DR0073A/B waste oil contaminated with halogenated organic compounds;
  - f. D-40 waste liquid organics (which may include varying amounts of chloroform, ethylene dichloride, methylene chloride, tetrachloroethylene, carbon tetrachloride, methyl chloroform, hexachlorobutadiene, hexachloroethane, hydrazine, methanol, methyl chloride, dichlorodifluoromethane, trichlorofluoromethane, trichloroethylene, vinyl chloride, acetone, 1,1-dichloroethylene, 1,4-dioxane, hexachlorobenzene).
- C. The permittee shall not incinerate any hazardous waste liquid with any hazardous constituent in concentration greater than 100 ppm whose heat of combustion is less than that of carbon tetrachloride ( $\text{CCl}_4$ ).
- D. All feed to F-1 Hex Furnace shall be tested as specified by the LDEQ Hazardous Waste Division and/or the Environmental Technology Division.
- E. Furnace operating conditions shall be controlled as specified below:

| Parameter                                      | Limit  |
|--|--|
| HEX Feed Alone                                 | 3.79 gpm or 3,044 lb/hr avg. (based on a 5-minute rolling average) |
| GWP Feed Alone                                 | 2.29 gpm or 1,836 lb/hr avg. (based on a 5-minute rolling average) |
| Combustion Air Flow                            | 4,000 scfm Max.  |
| Stack Vinyl Chloride Concentration (3-hr avg.) | 10 ppm Max.  |

(Note: Furnace temperature and T-11 Scrubber pH and recirculation flow rate are included in the Specific Requirements section of this permit.)

## STATE-ONLY SPECIFIC CONDITIONS

**F-1 HEX FURNACE**  
**AGENCY INTEREST NO.: 3400**  
**BASIC CHEMICALS COMPANY, LLC – GEISMAR PLANT**  
**GEISMAR, ASCENSION PARISH, LOUISIANA**

- F. Continuous Monitoring
- a. Within 180 days of permit issuance, continuous analyzers shall be installed, maintained, and calibrated to provide a continuous record of CO and O<sub>2</sub>. The permittee may develop a CO/O<sub>2</sub> operating curve (during compliance testing) in lieu of a continuous CO analyzer. Records shall be maintained on site and available for inspection by the Surveillance Division. These analyzers shall comply with the applicable provisions of performance specifications 2, 3, and 4, of 40 CFR 60, Appendix B.
  - b. The following operating parameters shall be continuously monitored and recorded or shall be recorded as specified below. Records shall be kept on site and available for inspection by the Surveillance Division.
    1. Furnace combustion temperature
    2. Liquid waste feed rate
    3. T-10 bottom temperature
    4. T-11 top media pH and flow rate
  - c. Data acquisition covering 95% of the operating time for any consecutive 12 month period shall be deemed sufficient to meet the continuous monitoring provisions.
- G. All hazardous waste feed and vent feed to the furnace shall stop immediately whenever there is a loss of flame in the furnace as indicated by the flame scanners.
- H. The permittee shall analyze each waste feed annually for suspected LATAP (including toxic metals) and use these results to quantify and speciate the toxic metal emissions. A report covering the feed analysis and toxic emissions shall be submitted by February 15 for the preceding year. Records shall be maintained on site and available for inspection by the Surveillance Division.
- I. Each vent gas stream shall be analyzed quarterly to determine vent gas composition. This quarterly analysis shall be used to speciate VOC and toxic emissions. Records of this analysis shall be maintained on site and available for inspection by the Surveillance Division.
  - J. The permittee shall perform a compliance test whenever operating conditions, including waste liquid and/or vent gas flow or concentration to the furnace change, if required by the Air Quality Regulatory Division.

In accordance with 40 CFR 63.1206(c)(1), the operating parameters and limits from the NOC, as well as alternative or additional requirements specified under 40 CFR 63.1209(g), shall become incorporated into the Title V permit upon completion of each CPT and submittal of the corresponding NOC. The next CPT must commence no later than 61 months after the date of

**STATE-ONLY SPECIFIC CONDITIONS**

**F-1 HEX FURNACE**

**AGENCY INTEREST NO.: 3400**

**BASIC CHEMICALS COMPANY, LLC – GEISMAR PLANT  
GEISMAR, ASCENSION PARISH, LOUISIANA**

commencement of the previous CPT, per 40 CFR 63.1207(d)(1). Upon completion of each CPT and along with the issuance of the corresponding NOC, the permittee shall submit to the LDEQ a permit modification application to modify the current permit with the most current operating parameters and limits from the most recent NOC.

## **40 CFR PART 70 GENERAL CONDITIONS**

- A. The term of this permit shall be five (5) years from date of issuance. An application for a renewal of this 40 CFR Part 70 permit shall be submitted to the administrative authority no later than six months prior to the permit expiration date. Should a complete permit application not be submitted six months prior to the permit expiration date, a facility's right to operate is terminated pursuant to 40 CFR Section 70.7(c)(ii). Operation may continue under the conditions of this permit during the period of the review of the application for renewal. [LAC 33:III.507.E.1, E.3, E.4, reference 40 CFR 70.6(a)(2)]
- B. The conditions of this permit are severable; and if any provision of this permit or the application of any provision of this permit to any circumstance is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby. [Reference 40 CFR 70.6(a)(5)]
- C. Permittee shall comply with all conditions of the 40 CFR Part 70 permit. Any permit noncompliance constitutes a violation of the Clean Air Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. This permit may be modified, revoked, reopened and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition. [LAC 33:III.507.B.2, reference 40 CFR 70.6(a)(6)(i) & (iii)]
- D. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. [Reference 40 CFR 70.6(a)(6)(ii)]
- E. This permit does not convey any property rights of any sort, or an exclusive privilege. [Reference 40 CFR 70.6(a)(6)(iv)]
- F. The permittee shall furnish to the permitting authority, within a reasonable time, any information that the permitting authority may request in writing to determine whether cause exists for modifying, revoking, and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the permitting authority copies of records required to be kept by the permit or, for information claimed to be confidential, the permittee may furnish such records directly to the Administrator along with a claim of confidentiality. A claim of confidentiality does not relieve the permittee of the requirement to provide the information. [LAC 33:III.507.B.2, 517.F, reference 40 CFR 70.6(a)(6)(v)]
- G. Permittee shall pay fees in accordance with LAC 33:III.Chapter 2 and 40 CFR Section 70.6(a)(7). [LAC 33:III.501.C.2, reference 40 CFR 70.6(a)(7)]
- H. Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the permitting authority or authorized representative to perform the following:
  1. enter upon the permittee's premises where a 40 CFR Part 70 source is located or emission-related activity is conducted, or where records must be kept under the conditions of the permit [LAC 33:III.507.H.2, reference 40 CFR 70.6(c)(2)(i)];
  2. have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit [LAC 33:III.507.H.2, reference 40 CFR 70.6(c)(2)(ii)];

## 40 CFR PART 70 GENERAL CONDITIONS

3. inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit [LAC 33:III.507.H.2, reference 40 CFR 70.6(c)(2)(iii)]; and
  4. as authorized by the Clean Air Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit or applicable requirements. [LAC 33:III.507.H.2, reference 40 CFR 70.6(c)(2)(iv)]
- I. All required monitoring data and supporting information shall be kept available for inspection at the facility or alternate location approved by the agency for a period of at least five (5) years from the date of the monitoring sample, measurement, report, or application. Supporting information includes calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and all reports required by the permit.  
[Reference 40 CFR 70.6(a)(3)(ii)(B)]
- J. Records of required monitoring shall include the following:
1. the date, place as defined in the permit, and time of sampling or measurements;
  2. the date(s) analyses were performed;
  3. the company or entity that performed the analyses;
  4. the analytical techniques or methods used;
  5. the results of such analyses; and
  6. the operating conditions as existing at the time of sampling or measurement.
- [Reference 40 CFR 70.6(a)(3)(ii)(A)]
- K. Permittee shall submit at least semiannually, reports of any required monitoring, clearly identifying all instances of deviations from permitted monitoring requirements, certified by a responsible company official. For previously reported deviations, in lieu of attaching the individual deviation reports, the semiannual report may clearly reference the communication(s)/correspondence(s) constituting the prior report, including the date the prior report was submitted. The semiannual reports shall be submitted to the Office of Environmental Compliance, Enforcement Division by March 31 for the preceding period encompassing July through December and September 30 for the preceding period encompassing January through June. Any quarterly deviation report required to be submitted by March 31 or September 30 in accordance with Part 70 General Condition R may be consolidated with the semi-annual reports required by this general condition as long as the report clearly indicates this and all required information is included and clearly delineated in the consolidated report. [LAC 33:III.507.H, reference 40 CFR 70.6(a)(3)(iii)(A)]
- L. The permittee shall submit at least semiannual reports on the status of compliance pursuant to 40 CFR Section 70.5 (c) (8) and a progress report on any applicable schedule of compliance pursuant to 40 CFR Section 70.6 (c) (4). [LAC 33:III.507.H.1, reference 40 CFR 70.6(c)(4)]
- M. Compliance certifications per LAC 33:III.507.H.5 shall be submitted to the Administrator as well as the permitting authority. For previously reported compliance deviations, in lieu of attaching the individual deviation reports, the annual report may clearly reference the communication(s)/correspondence(s) constituting the prior report, including the date the prior report was submitted. The compliance certifications shall be submitted to the Office of Environmental Compliance, Enforcement Division by March 31 for the preceding calendar year. [LAC 33:III.507.H.5, reference 40 CFR 70.6(c)(5)(iv)]

## 40 CFR PART 70 GENERAL CONDITIONS

- N. If the permittee seeks to reserve a claim of an affirmative defense as provided in LAC 33:III.507.J.2, the permittee shall, in addition to any emergency or upset provisions in any applicable regulation, notify the permitting authority within 2 working days of the time when emission limitations were exceeded due to the occurrence of an upset. In the event of an upset, as defined under LAC 33:III.507.J, which results in excess emissions, the permittee shall demonstrate through properly signed, contemporaneous operating logs, or other relevant evidence that: 1) an emergency occurred and the cause was identified; 2) the permitted facility was being operated properly at the time; and 3) during the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standard or requirement of the permit. [LAC 33:III.507.J.2, reference 40 CFR 70.6(g)(3)(iv) & (i-iii)]
- O. Permittee shall maintain emissions at a level less than or equal to that provided for under the allowances that the 40 CFR Part 70 source lawfully holds under Title IV of the Clean Air Act or the regulations promulgated thereunder. No permit revision shall be required for increases in emissions that are authorized by allowances acquired pursuant to the acid rain program, provided that such increases do not require a permit revision under any other applicable requirement. No limit shall be placed on the number of allowances held by the source. The source may not, however, use allowances as a defense to noncompliance with any other applicable requirement. Any such allowance shall be accounted for according to the procedures established in regulations promulgated under Title IV of the Clean Air Act. [Reference 40 CFR 70.6(a)(4)]
- P. Any permit issued pursuant to 40 CFR Part 70 may be subject to reopening prior to the expiration of the permit for any of the conditions specified in 40 CFR Section 70.7(f) or LAC 33:III.529. [LAC 33:III.529.A-B, reference 40 CFR 70.7(f)]
- Q. Permittee may request an administrative amendment to the permit to incorporate test results from compliance testing if the following criteria are met:
  1. the changes are a result of tests performed upon start-up of newly constructed, installed, or modified equipment or operations;
  2. increases in permitted emissions will not exceed five tons per year for any regulated pollutant;
  3. increases in permitted emissions of Louisiana toxic air pollutants or of federal hazardous air pollutants would not constitute a modification under LAC 33:III. Chapter 51 or under Section 112 (g) of the Clean Air Act;
  4. changes in emissions would not require new source review for prevention of significant deterioration or nonattainment and would not trigger the applicability of any federally applicable requirement;
  5. changes in emissions would not qualify as a significant modification; and
  6. the request is submitted no later than 12 months after commencing operation. [LAC 33:III.523.A, reference 40 CFR 70.7(d)]
- R. Permittee shall submit prompt reports of all permit deviations as specified below to the Office of Environmental Compliance, Enforcement Division. All such reports shall be certified by a responsible official in accordance with 40 CFR 70.5(d).

## **40 CFR PART 70 GENERAL CONDITIONS**

1. A written report shall be submitted within 7 days of any emission in excess of permit requirements by an amount greater than the Reportable Quantity established for that pollutant in LAC 33.I.Chapter 39.
  2. A written report shall be submitted within 7 days of the initial occurrence of any emission in excess of permit requirements, regardless of the amount, where such emission occurs over a period of seven days or longer.
  3. A written report shall be submitted quarterly to address all permit deviations not included in paragraphs 1 or 2 above. Unless required by an applicable reporting requirement, a written report is not required during periods in which there is no deviation. The quarterly deviation reports submitted on March 31 and September 30 may be consolidated with the semi-annual reports required by Part 70 General Condition K as long as the report clearly indicates this and all required information is included and clearly delineated in the consolidated report. For previously reported permit deviations, in lieu of attaching the individual deviation reports, the quarterly report may clearly reference the communication(s)/correspondence(s) constituting the prior report, including the date the prior report was submitted. The schedule for submittal of quarterly reports shall be no later than the dates specified below for any permit deviations occurring during the corresponding specified calendar quarter:
    - a. Report by June 30 to cover January through March
    - b. Report by September 30 to cover April through June
    - c. Report by December 31 to cover July through September
    - d. Report by March 31 to cover October through December
  4. Any written report submitted in advance of the timeframes specified above, in accordance with an applicable regulation, may serve to meet the reporting requirements of this condition provided such reports are certified in accordance with 40 CFR 70.5(d) and contain all information relevant to the permit deviation. Reporting under this condition does not relieve the permittee from the reporting requirements of any applicable regulation, including LAC 33.I.Chapter 39, LAC 33.III.Chapter 9, and LAC 33.III.5107. [Reference 40 CFR 70.6(a)(3)(iii)(B)]
- S. Permittee shall continue to comply with applicable requirements on a timely basis, and will meet on a timely basis applicable requirements that become effective during the permit term. [Reference 40 CFR 70.5(c)(8)(iii)]
- T. The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in Subpart B:
1. Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to 40 CFR 82.156;
  2. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158;
  3. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161;

## 40 CFR PART 70 GENERAL CONDITIONS

4. Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply with recordkeeping requirements pursuant to 40 CFR 82.166. ("MVAC-like appliance" as defined at 40 CFR 82.152);
  5. Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant to 40 CFR 82.156; and
  6. Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR 82.166. [Reference 40 CFR 82, Subpart F]
- U. If the permittee performs a service on motor (fleet) vehicles when this service involves ozone-depleting substance refrigerant (or regulated substitute substance) in the motor vehicle air conditioner (MVAC), the permittee is subject to all the applicable requirements as specified in 40 CFR Part 82, Subpart B, Servicing of Motor Vehicle Air Conditioners.
- The term "motor vehicle" as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed. The term "MVAC" as used in Subpart B does not include the air-tight sealed refrigeration system used as refrigerated cargo, or system used on passenger buses using HCFC-22 refrigerant. [Reference 40 CFR 82, Subpart B]
- V. Data availability for continuous monitoring or monitoring to collect data at specific intervals: Except for monitoring malfunctions, associated repairs, and required quality assurance or control activities (including calibration checks and required zero and span adjustments), the permittee shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the emissions unit is operating. For purposes of reporting monitoring deviations under Part 70 General Conditions K and R, and unless otherwise provided for in the Specific Requirements (or Table 3) of this permit, the minimum degree of data availability shall be at least 90% (based on a monthly average) of the operating time of the emissions unit or activity being monitored. This condition does not apply to Leak Detection and Repair (LDAR) programs for fugitive emissions (e.g., 40 CFR 60 Subpart VV, 40 CFR 63 Subpart H).

## **LOUISIANA AIR EMISSION PERMIT GENERAL CONDITIONS**

- I. This permit is issued on the basis of the emissions reported in the application for approval of emissions and in no way guarantees that the design scheme presented will be capable of controlling the emissions to the type and quantities stated. Failure to install, properly operate and/or maintain all proposed control measures and/or equipment as specified in the application and supplemental information shall be considered a violation of the permit and LAC 33:III.501. If the emissions are determined to be greater than those allowed by the permit (e.g. during the shakedown period for new or modified equipment) or if proposed control measures and/or equipment are not installed or do not perform according to design efficiency, an application to modify the permit must be submitted. All terms and conditions of this permit shall remain in effect unless and until revised by the permitting authority.
- II. The permittee is subject to all applicable provisions of the Louisiana Air Quality Regulations. Violation of the terms and conditions of the permit constitutes a violation of these regulations.
- III. The Emission Rates for Criteria Pollutants, Emission Rates for TAP/HAP & Other Pollutants, and Specific Requirements sections or, where included, Emission Inventory Questionnaire sheets establish the emission limitations and are a part of the permit. Any operating limitations are noted in the Specific Requirements or, where included, Tables 2 and 3 of the permit. The synopsis is based on the application and Emission Inventory Questionnaire dated March 31, 2006.
- IV. This permit shall become invalid, for the sources not constructed, if:
  - A. Construction is not commenced, or binding agreements or contractual obligations to undertake a program of construction of the project are not entered into, within two (2) years (18 months for PSD permits) after issuance of this permit, or;
  - B. If construction is discontinued for a period of two (2) years (18 months for PSD permits) or more.The administrative authority may extend this time period upon a satisfactory showing that an extension is justified.  
  
This provision does not apply to the time period between construction of the approved phases of a phased construction project. However, each phase must commence construction within two (2) years (18 months for PSD permits) of its projected and approved commencement date.
- V. The permittee shall submit semiannual reports of progress outlining the status of construction, noting any design changes, modifications or alterations in the construction schedule which have or may have an effect on the emission rates or ambient air quality levels. These reports shall continue to be submitted until such time as construction is certified as being complete. Furthermore, for any significant change in the design, prior approval shall be obtained from the Office of Environmental Services, Air Permits Division.
- VI. The permittee shall notify the Department of Environmental Quality, Office of Environmental Services, Air Permits Division within ten (10) calendar days from the date that construction is certified as complete and the estimated date of start-up of operation. The appropriate Regional Office shall also be so notified within the same time frame.

**LOUISIANA AIR EMISSION PERMIT  
GENERAL CONDITIONS**

- VII. Any emissions testing performed for purposes of demonstrating compliance with the limitations set forth in paragraph III shall be conducted in accordance with the methods described in the Specific Conditions and, where included, Tables 1, 2, 3, 4, and 5 of this permit. Any deviation from or modification of the methods used for testing shall have prior approval from the Office of Environmental Assessment, Air Quality Assessment Division.
- VIII. The emission testing described in paragraph VII above, or established in the specific conditions of this permit, shall be conducted within sixty (60) days after achieving normal production rate or after the end of the shakedown period, but in no event later than 180 days after initial start-up (or restart-up after modification). The Office of Environmental Assessment, Air Quality Assessment Division shall be notified at least (30) days prior to testing and shall be given the opportunity to conduct a pretest meeting and observe the emission testing. The test results shall be submitted to the Air Quality Assessment Division within sixty (60) days after the complete testing. As required by LAC 33:III.913, the permittee shall provide necessary sampling ports in stacks or ducts and such other safe and proper sampling and testing facilities for proper determination of the emission limits.
- IX. The permittee shall, within 180 days after start-up and shakedown of each project or unit, report to the Office of Environmental Compliance, Enforcement Division any significant difference in operating emission rates as compared to those limitations specified in paragraph III. This report shall also include, but not be limited to, malfunctions and upsets. A permit modification shall be submitted, if necessary, as required in Condition I.
- X. The permittee shall retain records of all information resulting from monitoring activities and information indicating operating parameters as specified in the specific conditions of this permit for a minimum of at least five (5) years.
- XI. If for any reason the permittee does not comply with, or will not be able to comply with, the emission limitations specified in this permit, the permittee shall provide the Office of Environmental Compliance, Enforcement Division with a written report as specified below.
- A. A written report shall be submitted within 7 days of any emission in excess of permit requirements by an amount greater than the Reportable Quantity established for that pollutant in LAC 33.I.Chapter 39.
- B. A written report shall be submitted within 7 days of the initial occurrence of any emission in excess of permit requirements, regardless of the amount, where such emission occurs over a period of seven days or longer.
- C. A written report shall be submitted quarterly to address all emission limitation exceedances not included in paragraphs A or B above. The schedule for submittal of quarterly reports shall be no later than the dates specified below for any emission limitation exceedances occurring during the corresponding specified calendar quarter:
1. Report by June 30 to cover January through March
2. Report by September 30 to cover April through June
3. Report by December 31 to cover July through September
4. Report by March 31 to cover October through December

**LOUISIANA AIR EMISSION PERMIT  
GENERAL CONDITIONS**

- D. Each report submitted in accordance with this condition shall contain the following information:
1. Description of noncomplying emission(s);
  2. Cause of noncompliance;
  3. Anticipated time the noncompliance is expected to continue, or if corrected, the duration of the period of noncompliance;
  4. Steps taken by the permittee to reduce and eliminate the noncomplying emissions; and
  5. Steps taken by the permittee to prevent recurrences of the noncomplying emissions.
- E. Any written report submitted in advance of the timeframes specified above, in accordance with an applicable regulation, may serve to meet the reporting requirements of this condition provided all information specified above is included. For Part 70 sources, reports submitted in accordance with Part 70 General Condition R shall serve to meet the requirements of this condition provided all specified information is included. Reporting under this condition does not relieve the permittee from the reporting requirements of any applicable regulation, including LAC 33.I.Chapter 39, LAC 33.III.Chapter 9, and LAC 33.III.5107.
- XII. Permittee shall allow the authorized officers and employees of the Department of Environmental Quality, at all reasonable times and upon presentation of identification, to:
- A. Enter upon the permittee's premises where regulated facilities are located, regulated activities are conducted or where records required under this permit are kept;
  - B. Have access to and copy any records that are required to be kept under the terms and conditions of this permit, the Louisiana Air Quality Regulations, or the Act;
  - C. Inspect any facilities, equipment (including monitoring methods and an operation and maintenance inspection), or operations regulated under this permit; and
  - D. Sample or monitor, for the purpose of assuring compliance with this permit or as otherwise authorized by the Act or regulations adopted thereunder, any substances or parameters at any location.
- XIII. If samples are taken under Section XII.D. above, the officer or employee obtaining such samples shall give the owner, operator or agent in charge a receipt describing the sample obtained. If requested prior to leaving the premises, a portion of each sample equal in volume or weight to the portion retained shall be given to the owner, operator or agent in charge. If an analysis is made of such samples, a copy of the analysis shall be furnished promptly to the owner, operator or agency in charge.
- XIV. The permittee shall allow authorized officers and employees of the Department of Environmental Quality, upon presentation of identification, to enter upon the permittee's premises to investigate potential or alleged violations of the Act or the rules and regulations adopted thereunder. In such investigations, the permittee shall be notified at the time entrance is requested of the nature of the suspected violation. Inspections under this subsection shall be limited to the aspects of alleged violations. However, this shall not in any way preclude prosecution of all violations found.

**LOUISIANA AIR EMISSION PERMIT  
GENERAL CONDITIONS**

- XV. The permittee shall comply with the reporting requirements specified under LAC 33:III.919 as well as notification requirements specified under LAC 33:III.927.
- XVI. In the event of any change in ownership of the source described in this permit, the permittee and the succeeding owner shall notify the Office of Environmental Services, Air Permits Division, within ninety (90) days after the event, to amend this permit.
- XVII. Very small emissions to the air resulting from routine operations, that are predictable, expected, periodic, and quantifiable and that are submitted by the permitted facility and approved by the Air Permits Division are considered authorized discharges. Approved activities are noted in the General Condition XVII Activities List of this permit. To be approved as an authorized discharge, these very small releases must:
1. Generally be less than 5 TPY
  2. Be less than the minimum emission rate (MER)
  3. Be scheduled daily, weekly, monthly, etc., or
  4. Be necessary prior to plant startup or after shutdown [line or compressor pressuring/depressuring for example]
- These releases are not included in the permit totals because they are small and will have an insignificant impact on air quality. This general condition does not authorize the maintenance of a nuisance, or a danger to public health and safety. The permitted facility must comply with all applicable requirements, including release reporting under LAC 33:I.3901.
- XVIII. Provisions of this permit may be appealed in writing pursuant to La. R.S. 30:2024(A) within 30 days from receipt of the permit. Only those provisions specifically appealed will be suspended by a request for hearing, unless the secretary or the assistant secretary elects to suspend other provisions as well. Construction cannot proceed except as specifically approved by the secretary or assistant secretary. A request for hearing must be sent to the following:

Attention: Office of the Secretary, Legal Services Division  
La. Dept. of Environmental Quality  
Post Office Box 4302  
Baton Rouge, Louisiana 70821-4302

- XIX. Certain Part 70 general conditions may duplicate or conflict with state general conditions. To the extent that any Part 70 conditions conflict with state general conditions, then the Part 70 general conditions control. To the extent that any Part 70 general conditions duplicate any state general conditions, then such state and Part 70 provisions will be enforced as if there is only one condition rather than two conditions.

## INVENTORIES

AI ID: 3400 - Occidental Chemical Corp - Geismar Plant  
 Activity Number: PER20030002  
 Permit Number: 2922-V0

Air - Title V Regular Permit Renewal

**Subject Item Inventory:**

| ID     | Description            | Tank Volume | Max. Operating Rate | Normal Operating Rate | Contents | Operating Time        |
|--------|------------------------|-------------|---------------------|-----------------------|----------|-----------------------|
| EQT299 | 100577 F-1 Hex Furnace |             |                     |                       |          | 8780 hr/yr (All Year) |

**Subject Item Groups:**

| ID     | Description   | Included Components (from Above) |
|--------|---------------|----------------------------------|
| GRP032 | F-1 Unit Wide | EQT299 100577 F-1 Hex Furnace    |

**Relationships:**

**Stack Information:**

| ID     | Velocity (ft/sec) | Flow Rate (cubic ft/min-actual) | Diameter (feet) | Discharge Area (square feet) | Height (feet) | Temperature (ofF) |
|--------|-------------------|---------------------------------|-----------------|------------------------------|---------------|-------------------|
| EQT299 | 62                | 7081                            | 1.67            | 75                           | 75            | 173               |

**Fee Information:**

| Subj Item Id | Multiplier | Units Of Measure | Fee Desc |
|--------------|------------|------------------|----------|
|              |            |                  |          |

## EMISSION RATES FOR CRITERIA POLLUTANTS

AI ID: 3400 - Occidental Chemical Corp - Geismar Plant

Activity Number: PER20030002

Permit Number: 2922-V0

Air - Title V Regular Permit Renewal

### All phases

| Subject Item      | PM <sub>10</sub> |           |           | SO <sub>2</sub> |           |           | NOx       |           |           | CO        |           |           | VOC       |           |           |
|-------------------|------------------|-----------|-----------|-----------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
|                   | Avg lb/hr        | Max lb/hr | Tons/Year | Avg lb/hr       | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year |
| EQT 299<br>100577 | 0.77             | 0.96      | 3.36      | 0.01            | 0.01      | 0.04      | 2.40      | 3.00      | 10.53     | 0.07      | 0.09      | 0.31      | 0.09      | 0.15      | 0.39      |

Note: Emission rates in bold are from alternate scenarios and are not included in permitted totals

### Permit Phase Totals:

PM10: 3.36 tons/yr  
SO2: 0.04 tons/yr  
NOx: 10.53 tons/yr  
CO: 0.31 tons/yr  
VOC: 0.39 tons/yr

### Emission rates Notes:

## EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

All ID: 3400 - Occidental Chemical Corp - Geismar Plant

Activity Number: PER20030002

Permit Number: 2922-V0

Air - Title V Regular Permit Renewal

### All phases

|                   | 1,1,1-Trichloroethane |           |           | 1,1,2,2-Tetrachloroethane |           |           | 1,1,2-Trichloroethane |           |           | 1,1-Dichloroethane |           |           | 1,2-Dibromoethane |           |           |
|-------------------|-----------------------|-----------|-----------|---------------------------|-----------|-----------|-----------------------|-----------|-----------|--------------------|-----------|-----------|-------------------|-----------|-----------|
| Subject Item      | Avg lb/hr             | Max lb/hr | Tons/Year | Avg lb/hr                 | Max lb/hr | Tons/Year | Avg lb/hr             | Max lb/hr | Tons/Year | Avg lb/hr          | Max lb/hr | Tons/Year | Avg lb/hr         | Max lb/hr | Tons/Year |
| EQT 299<br>100577 | < 0.001               | 0.002     | < 0.01    | < 0.001                   | < 0.001   | < 0.01    | < 0.001               | < 0.01    | < 0.001   | < 0.001            | < 0.01    | < 0.001   | < 0.001           | < 0.001   | < 0.01    |

**EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS**

AI ID: 3400 - Occidental Chemical Corp - Geismar Plant

Activity Number: PER20030002

Permit Number: 2922-V0

Air - Title V Regular Permit Renewal

**All phases**

| 1,2-Dichloroethane |           |           | 1,2-Dichloropropane |           |           | Benzene   |           |           | Carbon tetrachloride |           |           | Chlorine  |           |           |
|--------------------|-----------|-----------|---------------------|-----------|-----------|-----------|-----------|-----------|----------------------|-----------|-----------|-----------|-----------|-----------|
| Subject Item       | Avg lb/hr | Max lb/hr | Tons/Year           | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year            | Avg lb/hr | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr |
| EQT299<br>100577   | 0.002     | 0.01      | 0.01                | < 0.001   | < 0.001   | < 0.001   | < 0.01    | < 0.01    | < 0.001              | < 0.002   | < 0.01    | < 0.002   | 0.52      | 0.65      |

## EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

AI ID: 3400 - Occidental Chemical Corp - Geismar Plant

Activity Number: PIER20030002

Permit Number: 2922-V0

Air - Title V Regular Permit Renewal

### All phases

| Chloroethane      |           | Chloroform |           | Cobalt compounds |           |           | Dichloromethane |           |           | Formaldehyde |           |           |
|-------------------|-----------|------------|-----------|------------------|-----------|-----------|-----------------|-----------|-----------|--------------|-----------|-----------|
| Subject Item      | Avg lb/hr | Max lb/hr  | Tons/Year | Avg lb/hr        | Max lb/hr | Tons/Year | Avg lb/hr       | Max lb/hr | Tons/Year | Avg lb/hr    | Max lb/hr | Tons/Year |
| EQT 299<br>100577 | 0.001     | < 0.01     | 0.001     | 0.004            | < 0.01    | 0.001     | 0.002           | < 0.01    | 0.001     | 0.004        | < 0.01    | 0.001     |

## EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

AI ID: 3400 - Occidental Chemical Corp - Geismar Plant

Activity Number: PPER2003002

Permit Number: 2922-V0

Air - Title V Regular Permit Renewal

### All phases

| Hexachlorobenzene |           | Hexachlorobutadiene |           | Hexachlorocyclopentadiene |           | Hexachloroethane |           | Hydrochloric acid |           |
|-------------------|-----------|---------------------|-----------|---------------------------|-----------|------------------|-----------|-------------------|-----------|
| Subject Item      | Avg lb/hr | Max lb/hr           | Tons/Year | Avg lb/hr                 | Max lb/hr | Tons/Year        | Avg lb/hr | Max lb/hr         | Tons/Year |
| EQT 299           | 0.001     | < 0.001             | < 0.01    | < 0.001                   | < 0.001   | < 0.01           | < 0.001   | < 0.002           | < 0.01    |
| 100577            |           |                     |           |                           |           |                  |           |                   |           |

**EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS**

AI ID: 3400 - Occidental Chemical Corp - Geismar Plant

Activity Number: PER20030002

Permit Number: 2922-V0

Air - Title V Regular Permit Renewal

**All phases**

|                   |           | Lead compounds |           | Methanol  |           | Methyl chloride |           | Naphthalene |           | Polychlorinated biphenyls |           |
|-------------------|-----------|----------------|-----------|-----------|-----------|-----------------|-----------|-------------|-----------|---------------------------|-----------|
| Subject Item      | Avg lb/hr | Max lb/hr      | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year       | Avg lb/hr | Max lb/hr   | Tons/Year | Avg lb/hr                 | Tons/Year |
| EQT 299<br>100577 | 0.03      | 0.39           | 0.13      | < 0.001   | < 0.001   | 0.01            | 0.003     | 0.02        | 0.01      | < 0.001                   | < 0.001   |

## EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

AI ID: 3400 - Occidental Chemical Corp - Geismar Plant

Activity Number: PER20030002

Permit Number: 2922-V0

Air - Title V Regular Permit Renewal

### All phases

| Subject Item      | Tetrachloroethylene |           |           | Trichloroethylene |           |           | Vinyl chloride |           |           | Vinylidene chloride |           |           | n-Hexane  |           |           |
|-------------------|---------------------|-----------|-----------|-------------------|-----------|-----------|----------------|-----------|-----------|---------------------|-----------|-----------|-----------|-----------|-----------|
|                   | Avg lb/hr           | Max lb/hr | Tons/Year | Avg lb/hr         | Max lb/hr | Tons/Year | Avg lb/hr      | Max lb/hr | Tons/Year | Avg lb/hr           | Max lb/hr | Tons/Year | Avg lb/hr | Max lb/hr | Tons/Year |
| EQT 299<br>100577 | 0.002               | 0.003     | 0.01      | <                 | 0.001     | <         | 0.01           | <         | 0.001     | <                   | 0.001     | <         | 0.01      | <         | 0.03      |

Note: Emission rates in bold are from alternate scenarios and are not included in permitted totals

### Permit Parameter Totals:

1,1,1-Trichloroethane: <0.01 tons/yr  
**1,1,2,2-Tetrachloroethane: <0.01 tons/yr**  
**1,1,2-Trichloroethane: <0.01 tons/yr**  
**1,1-Dichloroethane: <0.01 tons/yr**  
**1,2-Dibromoethane: <0.01 tons/yr**  
**1,2-Dichloroethane: 0.01 tons/yr**  
**1,2-Dichloropropane: <0.01 tons/yr**  
**Benzene: <0.01 tons/yr**  
**Carbon tetrachloride: <0.01 tons/yr**  
**Chlorine: 2.27 tons/yr**  
**Chloroethane: <0.01 tons/yr**  
**Chlordform: <0.01 tons/yr**  
**Cobalt compounds: <0.01 tons/yr**  
**Dichloromethane: <0.01 tons/yr**  
**Formaldehyde: <0.01 tons/yr**  
**Hexachlorobenzene: <0.01 tons/yr**  
**Hexachlorobutadiene: <0.01 tons/yr**  
**Hexachlorocyclopentadiene: <0.01 tons/yr**  
**Hexachloroethane: <0.01 tons/yr**  
**Hydrochloric acid: 6.30 tons/yr**  
**Lead compounds: 0.13 tons/yr**  
**Methanol: <0.01 tons/yr**  
**Methyl chloride: 0.01 tons/yr**  
**n-Hexane: 0.12 tons/yr**  
**Naphthalene: <0.01 tons/yr**  
**Polychlorinated biphenyls: <0.01 tons/yr**

## **EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS**

All ID: 3400 - Occidental Chemical Corp - Geismar Plant

Activity Number: PER20030002

Permit Number: 2922-V0

Air - Title V Regular Permit Renewal

### **All phases**

Tetrachloroethylene: 0.01 tons/yr

Trichloroethylene: <0.01 tons/yr

Vinyl chloride: <0.01 tons/yr

Vinyldene chloride: <0.01 tons/yr

### **Emission Rates Notes:**

## SPECIFIC REQUIREMENTS

AI ID: 3400 - Occidental Chemical Corp - Geismar Plant

Activity Number: PER20030002

Permit Number: 2922-V0

Air - Title V Regular Permit Renewal

### EQT299

#### **F-1 Hex Furnace**

- 1 Opacity <= 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, charging of an incinerator, equipment changes, ash removal or rapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33.III.1101.B]
- 2 Which Month: All Year Statistical Basis: None specified
- 2 Opacity <= 20 percent; except emissions may have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33.III.1311.C]

Which Month: All Year Statistical Basis: Six-minute average

- 3 Equipment/operational data recordkeeping by electronic or hard copy continuously. Record and keep on site for at least two years the data required to demonstrate exemption from the provisions of LAC 33.III.Chapter 15. Record all emissions data in the units of the standard using the averaging time of the standard. Make records available to a representative of DEQ or the U.S. EPA on request. [LAC 33.III.1513]

4 Antimony < 0.001 lb/hr. [LAC 33.III.501.C.6]

5 Antimony < 0.001 lb/hr. [LAC 33.III.501.C.6]

5 Which Month: All Year Statistical Basis: Hourly maximum

6 Antimony < 0.01 tons/yr. [LAC 33.III.501.C.6]

6 Which Month: All Year Statistical Basis: Annual maximum

7 Arsenic < 0.001 lb/hr. [LAC 33.III.501.C.6]

7 Which Month: All Year Statistical Basis: Hourly average

8 Arsenic <= 0.02 lb/hr. [LAC 33.III.501.C.6]

8 Which Month: All Year Statistical Basis: Hourly maximum

9 Arsenic < 0.01 tons/yr. [LAC 33.III.501.C.6]

9 Which Month: All Year Statistical Basis: Annual maximum

10 Barium < 0.001 lb/hr. [LAC 33.III.501.C.6]

10 Which Month: All Year Statistical Basis: Hourly average

11 Barium < 0.001 lb/hr. [LAC 33.III.501.C.6]

11 Which Month: All Year Statistical Basis: Hourly maximum

12 Barium < 0.01 tons/yr. [LAC 33.III.501.C.6]

12 Which Month: All Year Statistical Basis: Annual maximum

13 Beryllium < 0.001 lb/hr. [LAC 33.III.501.C.6]

13 Which Month: All Year Statistical Basis: Hourly average

14 Beryllium <= 0.005 lb/hr. [LAC 33.III.501.C.6]

14 Which Month: All Year Statistical Basis: Hourly maximum

15 Beryllium < 0.01 tons/yr. [LAC 33.III.501.C.6]

15 Which Month: All Year Statistical Basis: Hourly maximum

16 Cadmium < 0.001 lb/hr. [LAC 33.III.501.C.6]

16 Which Month: All Year Statistical Basis: Hourly average

17 Cadmium <= 0.001 lb/hr. [LAC 33.III.501.C.6]

17 Which Month: All Year Statistical Basis: Hourly maximum

18 Cadmium < 0.01 tons/yr. [LAC 33.III.501.C.6]

18 Which Month: All Year Statistical Basis: Annual maximum

## SPECIFIC REQUIREMENTS

AI ID: 3400 - Occidental Chemical Corp - Geismar Plant  
Activity Number: PER20030002  
Permit Number: 2922-V0  
Air - Title V Regular Permit Renewal

### EQT299      100577 F-1 Hex Furnace

- 19 Chromium <= 0.02 lb/hr. [LAC 33:III.501.C.6]  
Which Months: All Year Statistical Basis: Hourly average
- 20 Chromium <= 0.12 lb/hr. [LAC 33:III.501.C.6]  
Which Months: All Year Statistical Basis: Hourly maximum
- 21 Chromium <= 0.07 tons/yr. [LAC 33:III.501.C.6]  
Which Months: All Year Statistical Basis: Annual maximum
- 22 Copper <= 0.02 lb/hr. [LAC 33:III.501.C.6]  
Which Months: All Year Statistical Basis: Hourly average
- 23 Copper <= 0.53 lb/hr. [LAC 33:III.501.C.6]  
Which Months: All Year Statistical Basis: Hourly maximum
- 24 Copper <= 0.09 tons/yr. [LAC 33:III.501.C.6]  
Which Months: All Year Statistical Basis: Annual maximum
- 25 Manganese <= 0.04 lb/hr. [LAC 33:III.501.C.6]  
Which Months: All Year Statistical Basis: Hourly average
- 26 Manganese <= 0.08 lb/hr. [LAC 33:III.501.C.6]  
Which Months: All Year Statistical Basis: Hourly maximum
- 27 Manganese <= 0.20 tons/yr. [LAC 33:III.501.C.6]  
Which Months: All Year Statistical Basis: Annual maximum
- 28 Mercury <= 0.02 lb/hr. [LAC 33:III.501.C.6]  
Which Months: All Year Statistical Basis: Hourly average
- 29 Mercury <= 0.07 lb/hr. [LAC 33:III.501.C.6]  
Which Months: All Year Statistical Basis: Hourly maximum
- 30 Nickel <= 0.08 tons/yr. [LAC 33:III.501.C.6]  
Which Months: All Year Statistical Basis: Annual maximum
- 31 Nickel <= 0.03 lb/hr. [LAC 33:III.501.C.6]  
Which Months: All Year Statistical Basis: Hourly average
- 32 Nickel <= 0.36 lb/hr. [LAC 33:III.501.C.6]  
Which Months: All Year Statistical Basis: Hourly maximum
- 33 Nickel <= 0.13 tons/yr. [LAC 33:III.501.C.6]  
Which Months: All Year Statistical Basis: Annual maximum
- 34 Selenium < 0.001 lb/hr. [LAC 33:III.501.C.6]  
Which Months: All Year Statistical Basis: Hourly maximum
- 35 Selenium < 0.01 lb/hr. [LAC 33:III.501.C.6]  
Which Months: All Year Statistical Basis: Hourly average
- 36 Selenium < 0.01 tons/yr. [LAC 33:III.501.C.6]  
Which Months: All Year Statistical Basis: Annual maximum
- 37 Zinc <= 0.02 lb/hr. [LAC 33:III.501.C.6]  
Which Months: All Year Statistical Basis: Hourly average
- 38 Zinc <= 2.51 lb/hr. [LAC 33:III.501.C.6]  
Which Months: All Year Statistical Basis: Hourly maximum

## SPECIFIC REQUIREMENTS

AI ID: 3400 - Occidental Chemical Corp - Geismar Plant

Activity Number: PER20030002

Permit Number: 2922-V0

Air - Title V Regular Permit Renewal

### EQT299 100577 F-1 Hex Furnace

39 Zinc <= 0.07 tons/yr. [LAC 33:III.501.C.6]

Which Months: All Year Statistical Basis: Annual maximum

40 T-1 Top Recirculation Flow rate >= 200 gallons/min. [LAC 33:III.501.C.6, 40 CFR 63.114(e)]  
Which Months: All Year Statistical Basis: None specified  
41 T-11 pH Top Recirculation: pH >= 8.7 s.u. [LAC 33:III.501.C.6, 40 CFR 63.114(e)]  
Which Months: All Year Statistical Basis: None specified

42 Submit report Due annually, by the 31st of March for the preceding calendar year. List the hours that the scrubber operated out of the ranges specified. Submit report to the Office of Environmental Compliance, Enforcement Division. (State-Only Requirement). [LAC 33:III.501.C.6]

43 Furnace Firebox Temperature >= 1850 F. [LAC 33:III.501.C.6, 40 CFR 63.114(e)]

44 Control emissions of toxic air pollutants to a degree that constitutes Maximum Achievable Control Technology (MACT) as approved by DEQ. Operating with a destruction efficiency of 98% for Organic HAPs and 95% for halogenated vent streams is determined as MACT. [LAC 33:III.5109.A]

45 HON OVERLAP PROVISIONS: After the compliance dates specified in 40 CFR 63.100, the owner or operator of any Group 1 process vent that is subject to the provisions of 40 CFR 63 Subpart G and to the provisions of 40 CFR 61 Subpart F shall comply only with the provisions of 40 CFR 63 Subpart G. The F-1 Hex Furnace is a backup control device for the F-2 Oxy Vent Furnace which is the primary control device for vents from the EDC Plant which are subject to 40 CFR 61 Subpart F. Subpart G. [40 CFR 63.110(f)(1)]

46 Organic HAP >= 98 % reduction by weight, or <= 20 ppmv, whichever is less stringent, as determined using the methods in 40 CFR 63.116(c). For combustion devices, calculate emission reduction or concentration on a dry basis, corrected to 3-percent oxygen. Subpart G. [40 CFR 63.113(a)(2)]

47 Halogenated vent streams from Group I process vents: Hydrogen halides and halogens >= 95 % reduction, or reduce the outlet mass of total hydrogen halides and halogens < 0.45 kg/hr, whichever is less stringent, using a halogen reduction device. Subpart G. [40 CFR 63.113(c)(1)(ii)]

48 Halogenated vent streams: Convey vent stream exiting a combustion device to a halogen reduction device, such as a scrubber, before being discharged to the atmosphere. Subpart G. [40 CFR 63.113(c)(1)]

49 Temperature monitored by temperature monitoring device continuously. Equip the temperature monitoring device with a continuous recorder and install in the firebox or in the ductwork immediately downstream of the firebox in a position before any substantial heat exchange occurs. Subpart G. [40 CFR 63.114(a)(1)]  
Which Months: All Year Statistical Basis: None specified

50 pH monitored by pH instrument continuously. Equip pH instrument with a continuous recorder. Monitor the pH of the scrubber effluent. Subpart G. [40 CFR 63.114(a)(4)(i)]  
Which Months: All Year Statistical Basis: None specified

51 Flow rate monitored by flow rate monitoring device continuously. Equip the flow monitor with a continuous recorder and install at the scrubber influent for liquid flow. Determine gas flow using one of the procedures specified in 40 CFR 63.114(a)(4)(ii)(A) through (a)(4)(ii)(C). Subpart G. [40 CFR 63.114(a)(4)(ii)]

52 Conduct a performance test using the procedures in 40 CFR 63.116(c)(1) through (c)(4). Subpart G. [40 CFR 63.116(c)]  
Which Months: All Year Statistical Basis: None specified

53 Conduct a performance test to determine compliance with the control efficiency or emission limits for hydrogen halides and halogens. Use the procedures in 40 CFR 63.116(d)(1) through (d)(5). Subpart G. [40 CFR 63.116(d)]

54 Equipment/operational data recordkeeping by electronic or hard copy continuously. Keep up-to-date, readily accessible records of the data specified in 40 CFR 63.117(a)(4) through (a)(8), as applicable. Subpart G. [40 CFR 63.117(a)]  
Equipment/operational data recordkeeping by electronic or hard copy at the regulation's specified frequency. Keep up-to-date, readily accessible records of the data specified in 40 CFR 63.118(a)(1) through (a)(4). Subpart G. [40 CFR 63.118(a)]

## SPECIFIC REQUIREMENTS

AI ID: 3400 - Occidental Chemical Corp - Geismar Plant

Activity Number: PER20030002

Permit Number: 2922-Y0

Air - Title V Regular Permit Renewal

### EQT299 100577 F-1 Hex Furnace

- 56 Inlet emissions from Group 1 storage vessels: Organic HAP  $\geq 95\%$  reduction, except as provided in 40 CFR 63.119(e)(2). If a flare is used, it shall meet the specifications described in the general control device requirements of 40 CFR 63.11(b). Subpart G. [40 CFR 63.119(e)(1)]
- Which Months: All Year Statistical Basis: None specified
- 57 Do not exceed 240 hours per year of periods of planned routine maintenance of the control device, during which the control device does not meet the specifications of 40 CFR 63.119(e)(1) or (e)(2). Subpart G. [40 CFR 63.119(e)(3)]
- 58 Prepare a design evaluation, which includes the information specified in 40 CFR 63.120(d)(1)(i), or submit the results of a performance test as described in 40 CFR 63.120(d)(1)(ii). Subpart G. [40 CFR 63.120(d)(1)]
- 59 Monitor the parameters specified in the Notification of Compliance Status required in 40 CFR 63.151(b) or in the operating permit and operate and maintain the control device such that the monitored parameters remain within the ranges specified in the Notification of Compliance Status. Subpart G. [40 CFR 63.120(d)(5)]
- 60 Submit, as part of the Notification of Compliance Status required by 40 CFR 63.151(b): A monitoring plan containing the information specified in 40 CFR 63.120(d)(2)(i) and in either (d)(2)(ii) or (d)(2)(iii); and the information specified in 40 CFR 63.120(d)(3)(i) and, if applicable, (d)(3)(ii). Subpart G. [40 CFR 63.120(d)]
- 61 Permittee shall be in compliance with all applicable standards of 40 CFR 63.1218 of Subpart EEE, and the requirements referenced therein, by the compliance date, which is currently October 14, 2008. Subpart EEE. [40 CFR 63.1206(a)(2)]
- 62 Submit an Initial Notification as required by 40 CFR 63.151(b). Subpart G. [40 CFR 63.122(a)(1)]
- 63 Submit a Notification of Compliance Status as required by 40 CFR 63.152(b). Include the information specified in 40 CFR 63.122(c). Subpart G. [40 CFR 63.122(a)(3)]
- 64 Submit Periodic Reports as required by 40 CFR 63.152(d). Include the information specified in 40 CFR 63.122(d), (e), (f), and (g). Subpart G. [40 CFR 63.122(a)(4)]
- 65 Submit, as applicable, other reports as required by 40 CFR 63.152(d). Include the information specified in 40 CFR 63.122(h). Subpart G. [40 CFR 63.122(a)(5)]
- 66 Equipment/operational data recordkeeping by electronic or hard copy continuously. Keep readily accessible records of the information specified in 40 CFR 63.123(a) through (i), as applicable. Keep the records as long as the storage vessel retains Group 1 status and is in operation. Subpart G. [40 CFR 63.123]
- 67 Group 1 Transfer Rack: Equip with a vapor collection system and control device. Subpart G. [40 CFR 63.126(a)]
- 68 Group 1 transfer racks: Organic HAP  $\geq 98\%$  reduction by weight or exit concentration  $\leq 20$  ppmv, whichever is less stringent, using a control device. Subpart G. [40 CFR 63.126(b)(1)]
- Which Months: All Year Statistical Basis: None specified
- 69 Halogenated vent streams from Group 1 transfer racks: Hydrogen halides and halogens  $\geq 95\%$  reduction, or reduce the outlet mass of total hydrogen halides and halogens < 0.45 kg/hr, whichever is less stringent, using a halogen reduction device. Subpart G. [40 CFR 63.126(d)(1)(ii)]
- Which Months: All Year Statistical Basis: None specified
- 70 Halogenated vent streams: Convey vent stream exiting a combustion device to a halogen reduction device, such as a scrubber, before being discharged to the atmosphere. Subpart G. [40 CFR 63.126(d)(1)]
- 71 Temperature monitored by temperature monitoring device continuously. Equip the temperature monitoring device with a continuous recorder and install in the firebox or in the ductwork immediately downstream of the firebox in a position before any substantial heat exchange occurs. Subpart G. [40 CFR 63.127(a)(1)]
- Which Months: All Year Statistical Basis: None specified
- 72 pH monitored by pH instrument continuously. Equip the pH monitor with a continuous recorder. Monitor the pH of the scrubber effluent. Subpart G. [40 CFR 63.127(a)(4)(i)]
- Which Months: All Year Statistical Basis: None specified
- 73 Flow monitored by flow rate monitoring device continuously. Equip the flow meter with a continuous recorder and install at the scrubber influent for liquid flow. Determine gas flow using one of the procedures specified in 40 CFR 63.127(a)(4)(ii)(A) through (a)(4)(ii)(C). Subpart G. [40 CFR 63.127(a)(4)(ii)]
- Which Months: All Year Statistical Basis: None specified
- 74 Determine compliance with 40 CFR 63.126 using the methods and procedures specified in 40 CFR 63.128(a) through (h), as applicable. Subpart G. [40 CFR 63.128]

## SPECIFIC REQUIREMENTS

AI ID: 3400 - Occidental Chemical Corp - Geismar Plant

Activity Number: PER20030002

Permit Number: 2922-V0

Air - Title V Regular Permit Renewal

### EQT299 100577 F-1 Hex Furnace

- 75 Equipment/operational data recordkeeping by electronic or hard copy continuously. Keep records of the information specified in 40 CFR 63.129(a) through (f). Subpart G. [40 CFR 63.129]
- 76 Equipment/operational data recordkeeping by electronic or hard copy continuously. Keep records of the information specified in 40 CFR 63.130(a) through (d). Subpart G. [40 CFR 63.130]
- 77 Equipment/operational data recordkeeping by electronic or hard copy continuously. Keep records of the information specified in 40 CFR 63.130(e) and (f). Subpart G. [40 CFR 63.130]
- 78 Permittee shall comply with the applicable leak inspection requirements of 40 CFR 63.148(b) through (j). Subpart G. [40 CFR 63.148(a)]
- 79 Permittee shall meet all applicable work practice standards and emission limitations of 40 CFR 63.7925. Subpart GGGGG. [40 CFR 63.7925]
- 80 Permittee shall comply with all applicable requirements of 40 CFR Part 64, Compliance Assurance Monitoring (CAM). [40 CFR 64.2]

### GRP032 F-1 Unit Wide

- 81 Emissions of smoke which pass onto or across a public road and create a traffic hazard by impairment of visibility as defined in LAC 33:III.111 or intensify an existing traffic hazard condition are prohibited. [LAC 33:III.1103]
- 82 Outdoor burning of waste material or other combustible material is prohibited. [LAC 33:III.1109.B]
- 83 Emissions of particulate matter which pass onto or across a public road and create a traffic hazard by impairment of visibility or intensify an existing traffic hazard condition are prohibited. [LAC 33:III.1303.B]
- 84 Maintain best practical housekeeping and maintenance practices at the highest possible standards to reduce the quantity of organic compounds emissions. Good housekeeping shall include, but not be limited to, the practices listed in LAC 33:III.2113.A.1-5. [LAC 33:III.2113.A]
- 85 Failure to pay the prescribed application fee or annual fee as provided herein, within 90 days after the due date, will constitute a violation of these regulations and shall subject the person to applicable enforcement actions under the Louisiana Environmental Quality Act including, but not limited to, revocation or suspension of the applicable permit, license, registration, or variance. [LAC 33:III.219]
- 86 Discharges of odorous substances at or beyond property lines which cause a perceived odor intensity of six or greater on the specified eight point butanol scale as determined by Method 41 of LAC 33:III.2901.G are prohibited. [LAC 33:III.2901.D]
- 87 If requested to monitor for odor intensity, take and transport samples in a manner which minimizes alteration of the samples either by contamination or loss of material. Evaluate all samples as soon after collection as possible in accordance with the procedures set forth in LAC 33:III.2901.G. [LAC 33:III.2901.F]
- 88 Maintain best practical housekeeping and maintenance practices at the highest possible standards to control emissions of highly reactive volatile organic compounds (HR VOC), which include 1,3-Butadiene, Butene, cis-2-Butene, Ethylene, Propylene, Toluene, Xylene, m/p-Xylene, o-Xylene. (State Only). [LAC 33:III.501.C.6]
- 89 Maintain, to the extent practicable, a leak-free facility taking such steps as are necessary and reasonable to prevent leaks and to expeditiously repair leaks that occur. Update the written plan presently required by LAC 33:III.2113.A.4 within 30 days of receipt of this permit to incorporate these general duty obligations into the housekeeping procedures. The plan shall then be considered a means of emission control subject to the required use and maintenance provisions of LAC 33:III.905. Failure to develop, use, and diligently maintain the plan shall be a violation of this permit. (State Only). [LAC 33:III.501.C.6]
- 90 Carbon monoxide <= 0.31 tons/yr. [LAC 33:III.501.C.6]  
Which Months: All Year Statistical Basis: Annual maximum
- 91 Nitrogen oxides <= 10.53 tons/yr. [LAC 33:III.501.C.6]  
Which Months: All Year Statistical Basis: Annual maximum
- 92 Particulate matter (10 microns or less) <= 3.36 tons/yr. [LAC 33:III.501.C.6]  
Which Months: All Year Statistical Basis: Annual maximum

## SPECIFIC REQUIREMENTS

AI ID: 3400 - Occidental Chemical Corp - Geismar Plant  
Activity Number: PER20030002  
Permit Number: 2922-V0  
Air - Title V Regular Permit Renewal

### GRP032 F-1 Unit Wide

- 93 Sulfur dioxide <= 0.04 tons/yr. [LAC 33:III.501.C.6]  
Which Months: All Year Statistical Basis: Annual maximum
- 94 VOC, Total <= 0.39 tons/yr. [LAC 33:III.501.C.6]  
Which Months: All Year Statistical Basis: Annual maximum
- 95 1,1,1-Trichloroethane < 0.01 tons/yr. [LAC 33:III.501.C.6]  
Which Months: All Year Statistical Basis: Annual maximum
- 96 1,1,2-Trichloroethane < 0.01 tons/yr. [LAC 33:III.501.C.6]  
Which Months: All Year Statistical Basis: Annual maximum
- 97 1,2-Dichloroethane <= 0.01 tons/yr. [LAC 33:III.501.C.6]  
Which Months: All Year Statistical Basis: Annual maximum
- 98 1,2-Dichloropropane < 0.01 tons/yr. [LAC 33:III.501.C.6]  
Which Months: All Year Statistical Basis: Annual maximum
- 99 Antimony < 0.01 tons/yr. [LAC 33:III.501.C.6]  
Which Months: All Year Statistical Basis: Annual maximum
- 100 Arsenic < 0.01 tons/yr. [LAC 33:III.501.C.6]  
Which Months: All Year Statistical Basis: Annual maximum
- 101 Barium < 0.01 tons/yr. [LAC 33:III.501.C.6]  
Which Months: All Year Statistical Basis: Annual maximum
- 102 Benzene < 0.01 tons/yr. [LAC 33:III.501.C.6]  
Which Months: All Year Statistical Basis: Annual maximum
- 103 Beryllium < 0.01 tons/yr. [LAC 33:III.501.C.6]  
Which Months: All Year Statistical Basis: Annual maximum
- 104 Cadmium < 0.01 tons/yr. [LAC 33:III.501.C.6]  
Which Months: All Year Statistical Basis: Annual maximum
- 105 Carbon tetrachloride < 0.01 tons/yr. [LAC 33:III.501.C.6]  
Which Months: All Year Statistical Basis: Annual maximum
- 106 Chlorine <= 2.27 tons/yr. [LAC 33:III.501.C.6]  
Which Months: All Year Statistical Basis: Annual maximum
- 107 Chloroethane < 0.01 tons/yr. [LAC 33:III.501.C.6]  
Which Months: All Year Statistical Basis: Annual maximum
- 108 Chloroform < 0.01 tons/yr. [LAC 33:III.501.C.6]  
Which Months: All Year Statistical Basis: Annual maximum
- 109 Methyl chloride <= 0.01 tons/yr. [LAC 33:III.501.C.6]  
Which Months: All Year Statistical Basis: Annual maximum
- 110 Chromium <= 0.07 tons/yr. [LAC 33:III.501.C.6]  
Which Months: All Year Statistical Basis: Annual maximum
- 111 Cobalt compounds < 0.01 tons/yr. [LAC 33:III.501.C.6]  
Which Months: All Year Statistical Basis: Annual maximum
- 112 Copper <= 0.09 tons/yr. [LAC 33:III.501.C.6]  
Which Months: All Year Statistical Basis: Annual maximum

## SPECIFIC REQUIREMENTS

AI ID: 3400 - Occidental Chemical Corp - Geismar Plant  
Activity Number: PER20030002  
Permit Number: 2922-V0

Air - Title V Regular Permit Renewal

### GRP032 F-1 Unit Wide

- 113 Dichloromethane < 0.01 tons/yr. [LAC 33:III.501.C.6]  
Which Months: All Year Statistical Basis: Annual maximum
- 114 Formaldehydes < 0.01 tons/yr. [LAC 33:III.501.C.6]  
Which Months: All Year Statistical Basis: Annual maximum
- 115 Hexachlorobutadiene < 0.01 tons/yr. [LAC 33:III.501.C.6]  
Which Months: All Year Statistical Basis: Annual maximum
- 116 Hexachlorobenzene < 0.01 tons/yr. [LAC 33:III.501.C.6]  
Which Months: All Year Statistical Basis: Annual maximum
- 117 Hexachlorocyclopentadiene < 0.01 tons/yr. [LAC 33:III.501.C.6]  
Which Months: All Year Statistical Basis: Annual maximum
- 118 n-Hexane <= 0.12 tons/yr. [LAC 33:III.501.C.6]  
Which Months: All Year Statistical Basis: Annual maximum
- 119 Hydrochloric acid <= 6.30 tons/yr. [LAC 33:III.501.C.6]  
Which Months: All Year Statistical Basis: Annual maximum
- 120 Lead compounds <= 0.13 tons/yr. [LAC 33:III.501.C.6]  
Which Months: All Year Statistical Basis: Annual maximum
- 121 Manganese <= 0.20 tons/yr. [LAC 33:III.501.C.6]  
Which Months: All Year Statistical Basis: Annual maximum
- 122 Mercury <= 0.08 tons/yr. [LAC 33:III.501.C.6]  
Which Months: All Year Statistical Basis: Annual maximum
- 123 Methanol < 0.01 tons/yr. [LAC 33:III.501.C.6]  
Which Months: All Year Statistical Basis: Annual maximum
- 124 Naphthalene < 0.01 tons/yr. [LAC 33:III.501.C.6]  
Which Months: All Year Statistical Basis: Annual maximum
- 125 Nickel <= 0.13 tons/yr. [LAC 33:III.501.C.6]  
Which Months: All Year Statistical Basis: Annual maximum
- 126 Selenium < 0.01 tons/yr. [LAC 33:III.501.C.6]  
Which Months: All Year Statistical Basis: Annual maximum
- 127 Trichloroethylene < 0.01 tons/yr. [LAC 33:III.501.C.6]  
Which Months: All Year Statistical Basis: Annual maximum
- 128 Vinyl chloride < 0.01 tons/yr. [LAC 33:III.501.C.6]  
Which Months: All Year Statistical Basis: Annual maximum
- 129 Zinc <= 0.07 tons/yr. [LAC 33:III.501.C.6]  
Which Months: All Year Statistical Basis: Annual maximum
- 130 Tetrachloroethylene <= 0.01 tons/yr. [LAC 33:III.501.C.6]  
Which Months: All Year Statistical Basis: Annual maximum
- 131 1,1,2,2-Tetrachloroethane < 0.01 tons/yr. [LAC 33:III.501.C.6]  
Which Months: All Year Statistical Basis: Annual maximum
- 132 1,1-Dichloroethane < 0.01 tons/yr. [LAC 33:III.501.C.6]  
Which Months: All Year Statistical Basis: Annual maximum

## SPECIFIC REQUIREMENTS

AI ID: 3400 - Occidental Chemical Corp - Geismar Plant

Activity Number: PER20030002

Permit Number: 2922-V0

Air - Title V Regular Permit Renewal

### GRP032 F-1 Unit Wide

- 133 1,2-Dibromoethane < 0.01 tons/yr. [LAC 33:III.501.C.6]  
Which Months: All Year Statistical Basis: Annual maximum
- 134 Hexachloroethane < 0.01 tons/yr. [LAC 33:III.501.C.6]  
Which Months: All Year Statistical Basis: Annual maximum
- 135 Polychlorinated biphenyls < 0.01 tons/yr. [LAC 33:III.501.C.6]  
Which Months: All Year Statistical Basis: Annual maximum
- 136 Vinylidene chloride < 0.01 tons/yr. [LAC 33:III.501.C.6]  
Which Months: All Year Statistical Basis: Annual maximum
- 137 Do not construct or modify any stationary source subject to any standard set forth in LAC 33:III.Chapter 51.Subchapter A without first obtaining written authorization from DEQ in accordance with LAC 33:III.Chapter 51.Subchapter A, after the effective date of the standard. [LAC 33:III.5105.A.1]
- 138 Do not cause a violation of any ambient air standard listed in LAC 33:III.Table 51.2, unless operating in accordance with LAC 33:III.5109. [LAC 33:III.5105.A.2]
- 139 Do not build, erect, install, or use any article, machine, equipment, process, or method, the use of which conceals an emission that would otherwise constitute a violation of an applicable standard. [LAC 33:III.5105.A.3]
- 140 Do not fail to keep records, notify, report or revise reports as required under LAC 33:III.Chapter 51.Subchapter A. [LAC 33:III.5105.A.4]
- 141 Submit Annual Emissions Report (TED). Due annually, by the 1st of July, to the Office of Environmental Assessment, Air Quality Assessment Division, in a format specified by DEQ. Identify the quantity of emissions in the previous calendar year for any toxic air pollutant listed in Table 51.1 or Table 51.3. [LAC 33:III.5107.A.2]
- 142 Submit notification: Due to the Department of Public Safety 24-hour Louisiana Emergency Hazardous Materials Hotline at (225) 925-6595 immediately, but no later than 1 hour, after any discharge of a toxic air pollutant into the atmosphere which results or threatens to result in an emergency condition (a condition which could reasonably be expected to endanger the health and safety of the public, cause significant adverse impact to the land, water or air environment, or cause severe damage to property). [LAC 33:III.5107.B.1]
- 143 Submit notification: Due to the Office of Environmental Compliance, Emergency and Radiological Services Division, Single Point of Contact (SPOC), except as provided in LAC 33:III.5107.B.6, no later than 24 hours after the beginning of any unauthorized discharge into the atmosphere of a toxic air pollutant as a result of bypassing an emission control device, when the emission control bypass was not the result of an upset, and the quantity of the unauthorized bypass is greater than or equal to the lower of the Minimum Emission Rate (MER) in LAC 33:III.5112, Table 51.1, or a reportable quantity (RQ) in LAC 33:I.3931, or the quantity of the unauthorized bypass is greater than one pound and there is no MER or RQ for the substance in question. Submit notification in the manner provided in LAC 33:I.3923. [LAC 33:III.5107.B.2]
- 144 Submit notification: Due to the Office of Environmental Compliance, Emergency and Radiological Services, SPOC, immediately, but in no case later than 24 hours after any unauthorized discharge of a toxic air pollutant into the atmosphere that does not cause an emergency condition, the rate or quantity of which is in excess of that allowed by permit, compliance schedule, or variance, or for upset events that exceed the reportable quantity in LAC 33:I.3931, except as provided in LAC 33:III.5107.B.6. Submit notification in the manner provided in LAC 33:I.3923. [LAC 33:III.5107.B.3]
- 145 Submit written report: Due within seven calendar days of learning of any such discharge or equipment bypass as referred to in LAC 33:III.5107.B.1 through 3. Submit report to the Office of Environmental Compliance by certified mail. Include the information specified in LAC 33:III.5107.B.4.a.i through viii. [LAC 33:III.5107.B.4]
- 146 Report all discharges to the atmosphere of a toxic air pollutant from a safety relief device, a line or vessel rupture, a sudden equipment failure, or a bypass of an emission control device, regardless of quantity, in the annual emissions report and where otherwise specified. Include the identity of the source, the date and time of the discharge, and the approximate total loss during the discharge. [LAC 33:III.5107.B.5]
- 147 Achieve compliance with ambient air standards unless it can be demonstrated to the satisfaction of DEQ that compliance with an ambient air standard would be economically infeasible; that emissions could not reasonably be expected to pose a threat to public health or the environment; and that emissions would be controlled to a level that is Maximum Achievable Control Technology. [LAC 33:III.5109.B.3]
- 148 Determine the status of compliance, beyond the property line, with applicable ambient air standards listed in LAC 33:III.5112.Table 51.2. [LAC 33:III.5109.B]

## SPECIFIC REQUIREMENTS

AI ID: 3400 - Occidental Chemical Corp - Geismar Plant

Activity Number: PER20030002

Permit Number: 2922-V0

Air - Title V Regular Permit Renewal

### GRP032 F-1 Unit Wide

- 149 Develop a standard operating procedure (SOP) within 120 days after achieving or demonstrating compliance with the standards specified in LAC 33:III.Chapter 5I. Detail in the SOP all operating procedures or parameters established to ensure that compliance with the applicable standards is maintained and address operating procedures for any monitoring system in place, specifying procedures to ensure compliance with LAC 33:III.5113.C.5. Make a written copy of the SOP available on site or at an alternate approved location for inspection by DEQ. Provide a copy of the SOP within 30 days upon request by the department. [LAC 33:III.5109.C]
- 150 Obtain a Louisiana Air Permit in accordance with LAC 33:III.5111.B and C and in accordance with LAC 33:I.1701, before commencement of the construction of any new source. [LAC 33:III.5111.A.1]
- 151 Obtain a permit modification in accordance with LAC 33:III.5111.B and C before commencement of any modification not specified in a compliance plan submitted under LAC 33:III.5109.D if the modification will result in an increase in emissions of any toxic air pollutant or will create a new point source. [LAC 33:III.5111.A.2.a]
- 152 Do not commence construction or modification of any major source without first obtaining written authorization from DEQ, as specified. [LAC 33:III.5111.A.]
- 153 Ensure that all testing done to determine the emission of toxic air pollutants, upon request by the department, is conducted by qualified personnel. [LAC 33:III.5113.B.1]
- 154 Conduct emission tests as set forth in accordance with Test Methods of 40 CFR, parts 60, 61, and 63 or in accordance with alternative test methods approved by DEQ. [LAC 33:III.5113.B.2]
- 155 Provide necessary sampling and testing facilities, exclusive of instruments and sensing devices, as needed to properly determine the emission of toxic air pollutants, upon request of the department. [LAC 33:III.5113.B.3]
- 156 Provide emission testing facilities as specified in LAC 33:III.5113.B.4, a through e. [LAC 33:III.5113.B.4]
- 157 Analyze samples and determine emissions within 30 days after each emission test has been completed. [LAC 33:III.5113.B.5]
- 158 Submit certified letter: Due to the Office of Environmental Assessment, Air Quality Assessment Division, before the close of business on the 45th day following the completion of the emission test. Report the determinations of the emission test. [LAC 33:III.5113.B.5]
- 159 Equipment/operational data recordkeeping by electronic or hard copy upon each occurrence of emissions testing. Retain records of emission test results and other data needed to determine emissions. Retained records at the source, or at an alternate location approved by DEQ for a minimum of two years, and make available upon request for inspection by DEQ. [LAC 33:III.5113.B.6]
- 160 Submit notification: Due to the Office of Environmental Assessment, Air Quality Assessment Division, at least 30 days before the emission test. Submit notification of emission test to allow DEQ the opportunity to have an observer present during the test. [LAC 33:III.5113.B.7]
- 161 Maintain and operate each monitoring system in a manner consistent with good air pollution control practices for minimizing emissions. Repair or adjust any breakdown or malfunction of the monitoring system as soon as practicable after its occurrence. [LAC 33:III.5113.C.1]
- 162 Conduct performance evaluation of the monitoring system when required at any other time requested by DEQ. [LAC 33:III.5113.C.2]
- 163 Submit performance evaluation report: Due to the Office of Environmental Assessment, Air Quality Assessment Division, within 60 days of the monitoring system performance evaluation. [LAC 33:III.5113.C.2]
- 164 Submit notification in writing: Due to the Office of Environmental Assessment, Environmental Technology Division at least 30 days before a performance evaluation of the monitoring system is to begin. [LAC 33:III.5113.C.2]
- 165 Install a monitoring system on each effluent or on the combined effluent, when monitoring is required and the effluents from a single source, or from two or more sources subject to the same emission standards, are combined before being released to the atmosphere. If two or more sources are not subject to the same emission standards, install a separate monitoring system on each effluent, unless otherwise specified. If the applicable standard is a mass emission standard and the effluent from one source is released to the atmosphere through more than one point, install a monitoring system at each emission point unless DEQ approves the installation of fewer systems. [LAC 33:III.5113.C.3]
- 166 Evaluate the performance of continuous monitoring systems, upon request by DEQ, in accordance with the requirements and procedures contained in the applicable performance specification of 40 CFR Part 60, appendix B. [LAC 33:III.5113.C.5.a]
- 167 Submit report: Due to DEQ within 60 days of the performance evaluation of the CMS, if requested. Furnish DEQ with two or more copies of a written report of the test results within 60 days. [LAC 33:III.5113.C.5.a]

## SPECIFIC REQUIREMENTS

AI ID: 3400 - Occidental Chemical Corp - Geismar Plant

Activity Number: PER20030002

Permit Number: 2922-V0

Air - Title V Regular Permit Renewal

### GRP032 F-1 Unit Wide

- 168 Install all continuous monitoring systems or monitoring devices to make representative measurements under variable process or operating parameters, if required to install a CMS. [LAC 33:III.5113.C.5.d]
- 169 Collect and reduce all data as specified in LAC 33:III.5113.C.5.e.i and ii, if required to install a CMS. [LAC 33:III.5113.C.5.e]
- 170 Submit plan: Due to the Office of Environmental Assessment, Air Quality Assessment Division, within 90 days after DEQ requests either the initial plan or an updated plan, if required by DEQ to install a continuous monitoring system. Submit for approval a plan describing the affected sources and the methods for ensuring compliance with the continuous monitoring system. [LAC 33:III.5113.C.5]
- 171 Maintain records of monitoring data, monitoring system calibration checks, and the occurrence and duration of any period during which the monitoring system is malfunctioning or inoperative. Maintain these records at the source, or at an alternative location approved by DEQ, for a minimum of three years and make available, upon request, for inspection by DEQ. [LAC 33:III.5113.C.7]
- 172 An individual or company contracted to perform a demolition or renovation activity which disturbs RACM must be recognized by the Licensing Board for Contractors to perform asbestos abatement, and shall meet the requirements of LAC 33:III.5151.F.2 and F.3 for each demolition or renovation activity. [LAC 33:III.5151.F.1.f]
- 173 Activate the preplanned abatement strategy listed in LAC 33:III.5611.Table 5 when the administrative authority declares an Air Pollution Alert. [LAC 33:III.5609.A.1.b]
- 174 Activate the preplanned strategy listed in LAC 33:III.5611.Table 6 when the administrative authority declares an Air Pollution Warning. [LAC 33:III.5609.A.2.b]
- 175 Activate the preplanned abatement strategy listed in LAC 33:III.5611.Table 7 when the administrative authority declares an Air Pollution Emergency. [LAC 33:III.5609.A.3.b]
- 176 Prepare standby plans for the reduction of emissions during periods of Air Pollution Alert, Air Pollution Warning and Air Pollution Emergency. Design standby plans to reduce or eliminate emissions in accordance with the objectives as set forth in LAC 33:III.5611.Tables 5, 6, and 7. [LAC 33:III.5609.A]
- 177 Comply with the provisions in 40 CFR 68, except as specified in LAC 33:III.5901. [LAC 33:III.5901.A]
- 178 Identify hazards that may result from accidental releases of the substances listed in 40 CFR 68.130, Table 59.0 of LAC 33:III.5907, or Table 59.1 of LAC 33:III.5913 using appropriate hazard assessment techniques, design and maintain a safe facility, and minimize the off-site consequences of accidental releases of such substances that do occur. [LAC 33:III.5907]
- 179 Submit registration: Due January 31, 1998, or within 60 days after the source becomes subject to LAC 33:III.Chapter 59, whichever is later. Include the information listed in LAC 33:III.5911.B, and submit to the Department of Environmental Quality, Office of Environmental Compliance, Emergency and Radiological Services Division. [LAC 33:III.5911.A]
- 180 Submit amended registration: Due to the Department of Environmental Quality, Office of Environmental Compliance, Emergency and Radiological Services Division, within 60 days after the information in the submitted registration is no longer accurate. [LAC 33:III.5911.C]
- 181 Submit Emission Inventory (EI)/Annual Emissions Statement: Due annually, by the 31st of March for the period January 1 to December 31 of the previous year unless otherwise directed. Submit emission inventory data in the format specified by the Office of Environmental Assessment, Air Quality Assessment Division. Include all data applicable to the emissions source(s), as specified in LAC 33:III.919.A-D. [LAC 33:III.919.D]
- 182 Report the unauthorized discharge of any air pollutant into the atmosphere in accordance with LAC 33:III. Chapter 39, Notification Regulations and Procedures for Unauthorized Discharges. Submit written reports to the department pursuant to LAC 33:III.3925. Submit timely and appropriate follow-up reports detailing methods and procedures to be used to prevent similar atmospheric releases. [LAC 33:III.927]
- 183 All affected facilities shall comply with all applicable provisions in 40 CFR 61 Subpart A. [40 CFR 61.01]
- 184 All affected facilities shall comply with all applicable provisions in 40 CFR 61 Subpart M. [40 CFR 61.140]
- 185 Provide DEQ with written notice of intention to demolish or renovate prior to performing activities to which 40 CFR 61 Subpart M applies. Delivery of the notice by U.S. Postal Service, commercial delivery service, or hand delivery is acceptable. Subpart M. [40 CFR 61.145(b)(1)]
- 186 Do not install or reinstall on a facility component any insulating materials that contain commercial asbestos if the materials are either molded and friable or wet-applied and friable after drying. Subpart M. [40 CFR 61.148]

## SPECIFIC REQUIREMENTS

AI ID: 3400 - Occidental Chemical Corp - Gesmar Plant

Activity Number: PER20030002

Permit Number: 2922-V0

Air - Title V Regular Permit Renewal

### GRP032 F-1 Unit Wide

- 187 Submit report: Due whenever there is a change in the process generating the waste stream that could cause the total annual benzene quantity from facility waste to increase to 1 Mg/yr (1.1 ton/yr) or more. Submit updates to the information listed in 40 CFR 61.357(a)(1) through (a)(3). Subpart FF. [40 CFR 61.357(b)]
- 188 All affected facilities shall comply with all applicable provisions in 40 CFR 63 Subpart A. [40 CFR 63.1]
- 189 Permittee shall comply with all applicable provisions of 40 CFR 63.1218 of Subpart EEE by the compliance date, which is currently October 14, 2008. [40 CFR 63.1206(a)(2)]
- 190 Submit Initial Notification: Due in writing within 120 calendar days after the date of promulgation of 40 CFR 63 Subpart G. Include the information specified in 40 CFR 63.151(b)(1) through (b)(1)(v). Subpart G. [40 CFR 63.151(b)]
- 191 Submit Notification of Compliance Status: Due within 150 calendar days after the compliance dates specified in 40 CFR 63.100. Include the information specified in 40 CFR 63.152(b)(1) through (b)(6), as applicable. Subpart G. [40 CFR 63.152(b)]
- 192 Submit Periodic Reports: Due semiannually no later than 60 calendar days after the end of each 6-month period, except as specified in 40 CFR 63.152(c)(5) and (c)(6). Submit the first report no later than 8 months after the date the Notification of Compliance Status is due. Include the information specified in 40 CFR 63.152(c)(2) through (c)(4). Subpart G. [40 CFR 63.152(c)]
- 193 Equipment/operational data recordkeeping by electronic or hard copy at the regulation's specified frequency. Keep records as specified in 40 CFR 63.152(f)(1) through (f)(7). Subpart G. [40 CFR 63.152(f)]
- 194 All affected facilities shall comply with all applicable provisions in 40 CFR 63 Subpart GGGGG. [40 CFR 63.7880]
- 195 Submit Title V permit application for renewal: Due 180 calendar days before permit expiration date. [40 CFR 70.5(a)(1)(iii)]
- 196 Submit Title V monitoring results report: Due semiannually, by March 31st and September 30th for the preceding periods encompassing July through December and January through June, respectively. Submit reports to the Office of Environmental Compliance, Surveillance Division. Certify reports by a responsible company official. Clearly identify all instances of deviations from permitted monitoring requirements. For previously reported deviations, in lieu of attaching the individual deviation reports, clearly reference the communication(s)/correspondence(s) constituting the prior report, including the date the prior report was submitted. [40 CFR 70.6(a)(3)(iii)(A)]
- 197 Submit Title V excess emissions report: Due quarterly, by June 30, September 30, December 31, March 31. Submit reports of all permit deviations to the Office of Environmental Compliance, Surveillance Division. Certify all reports by a responsible official in accordance with 40 CFR 70.5(d). The reports submitted on March 31 and September 30 may be consolidated with the semi-annual reports required by 40 CFR 70.6(a)(3)(iii)(B) as long as the report clearly indicates this and all required information is included and clearly delineated in the consolidated report. [40 CFR 70.6(a)(3)(iii)(B)]
- 198 Submit Title V compliance certification: Due annually, by the 31st of March. Submit to the Office of Environmental Compliance, Surveillance Division. [40 CFR 70.6(c)(5)(iv)]
- 199 Comply with the standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in Subpart B. [40 CFR 82.Subpart F]

**General Information**

AI ID: 3400 Occidental Chemical Corp - Geismar Plant  
 Activity Number: PER20030002  
 Permit Number: 2922-Y0  
 Air - Title V Regular Permit Renewal

| Also Known As:     | ID         | Name   | User Group                       | Start Date                         |
|--------------------|------------|--|----------------------------------|------------------------------------|
|                    | 0180-00011 | Occidental Chemical Corp - Geismar Plant             | CDS Number                       | 05-27-1993                         |
|                    | 0180-0011  | Vulcan Materials Co - Geismar Plant                  | Emission Inventory               | 02-25-2004                         |
| LAD092681824       |            | Occidental Chemical Corp                             | Hazardous Waste Notification     | 12-22-2006                         |
| PMT/PCICA          |            | GPRAs Baselines                                      | Hazardous Waste Permitting       | 10-01-1997                         |
| LAD092681824       |            | Vulcan Chemicals                                     | Inactive & Abandoned Sites       | 01-01-1980                         |
| LA0002933          |            | LPDES #  | LPDES Permit #                   | 06-25-2003                         |
| LAR10B495          |            | LPDES #  | LPDES Permit #                   | 01-26-2001                         |
| WP0988             |            | LWDPs #  | LWDPs Permit #                   | 06-25-2003                         |
|                    |            | Occidental Chemical Corp - Geismar Plant             | Multimedia                       | 01-01-2007                         |
|                    |            | Priority 1 Emergency Site                            | Priority 1 Emergency Site        | 07-18-2006                         |
|                    |            | Radioactive Material License                         | Radiation License Number         | 07-29-2003                         |
| LA-2848-L01A       |            | Norm   | Radiation License Number         | 03-28-2006                         |
| LA-466A-N01        |            | Vulcan Chemicals                                     | Solid Waste                      | 01-08-2002                         |
| GD-005-2063        |            | SW ID#   | Solid Waste Facility No.         | 04-30-2001                         |
| GD-005-2063        |            | Vulcan Chemicals                                     | TEMPO Merge                      | 11-01-2000                         |
| 38835              |            | Toxic Emissions Data Inventory #                     | Toxic Emissions Data Inventory # | 01-01-1991                         |
| 0180-0011          |            | TRI #  | Toxic Release Inventory          | 07-09-2004                         |
| 70734VLCNMASHILA   |            | UST Facility ID (from UST legacy data)               | Underground Storage Tanks        | 10-11-2002                         |
| 03009875           |            |  |                                  |                                    |
|                    |            |  | Main FAX:                        | 2254742632                         |
|                    |            |  | Main Phone:                      | 2254742605                         |
|                    |            |  |                                  |                                    |
| Physical Location: |            | 8318 Ashland Rd<br>(portion of)<br>Geismar, LA 70734 |                                  |                                    |
| Mailing Address:   |            | PO Box 227<br>Geismar, LA 707340227                  |                                  |                                    |
| Related People:    |            | Name   | Mailing Address                  | Relationship                       |
|                    |            | Wade Alleman   | PO Box 227 Geismar, LA 707340227 | Responsible Official for           |
|                    |            | Linn Fink  | PO Box 227 Geismar, LA 707340227 | Responsible Official for           |
|                    |            | Linn Fink  | PO Box 227 Geismar, LA 707340227 | Responsible Official for           |
|                    |            | Linn Fink  | PO Box 227 Geismar, LA 707340227 | Responsible Official for           |
|                    |            | Linn Fink  | PO Box 227 Geismar, LA 707340227 | Air Permit Contact For             |
|                    |            | Linn Fink  | PO Box 227 Geismar, LA 707340227 | Air Permit Contact For             |
|                    |            | Linn Fink  | PO Box 227 Geismar, LA 707340227 | Hazardous Waste Permit Contact For |
|                    |            | Linn Fink  | PO Box 227 Geismar, LA 707340227 | Accident Prevention Contact for    |
|                    |            | Linn Fink  | PO Box 227 Geismar, LA 707340227 | Accident Prevention Contact for    |

**General Information**

AI ID: 3400 Occidental Chemical Corp - Geismar Plant  
 Activity Number: PER2003002  
 Permit Number: 2922-V0

**Air - Title V Regular Permit Renewal**

| Related People:          | Name                                    | Mailing Address                  | Phone (Type)        | Relationship                          |
|--------------------------|---|----------------------------------|---------------------|---------------------------------------|
| Linn Fink                | Linn Fink                               | PO Box 227 Geismar, LA 707340227 | 2254742632 (WF)     | Accident Prevention Billing Party for |
| Linn Fink                | Linn Fink                               | PO Box 227 Geismar, LA 707340227 | linn_fink@oxy.com ( | Accident Prevention Billing Party for |
| Linn Fink                | Linn Fink                               | PO Box 227 Geismar, LA 707340227 | 2254742605 (WP)     | Accident Prevention Billing Party for |
| Linn Fink                | Linn Fink                               | PO Box 227 Geismar, LA 707340227 | 2254742632 (WF)     | Underground Storage Tank Contact for  |
| Linn Fink                | Linn Fink                               | PO Box 227 Geismar, LA 707340227 | linn_fink@oxy.com ( | Underground Storage Tank Contact for  |
| Linn Fink                | Linn Fink                               | PO Box 227 Geismar, LA 707340227 | 2254742605 (NP)     | Underground Storage Tank Contact for  |
| Linn Fink                | Linn Fink                               | PO Box 227 Geismar, LA 707340227 | linn_fink@oxy.com ( | Underground Storage Tank Contact for  |
| Linn Fink                | Linn Fink                               | PO Box 227 Geismar, LA 707340227 | 2254742632 (WF)     | Hazardous Waste Permit Contact For    |
| Linn Fink                | Linn Fink                               | PO Box 227 Geismar, LA 707340227 | 2254742605 (WF)     | Hazardous Waste Permit Contact For    |
| Linn Fink                | Linn Fink                               | PO Box 227 Geismar, LA 707340227 | linn_fink@oxy.com ( | Air Permit Contact For                |
| Jimmy Villar             | Jimmy Villar                            | PO Box 227 Geismar, LA 707340227 | 2254735008 (WP)     | Radiation Safety Officer for          |
| Jimmy Villar             | Jimmy Villar                            | PO Box 227 Geismar, LA 707340227 | 2254735008 (WP)     | Asbestos Contact for                  |
| Jimmy Villar             | Jimmy Villar                            | PO Box 227 Geismar, LA 707340227 | 2254735106 (WF)     | Asbestos Contact for                  |
| Jimmy Villar             | Jimmy Villar                            | PO Box 227 Geismar, LA 707340227 | Jimmy_Villar@oxy.ca | Asbestos Contact for                  |
| Jimmy Villar             | Jimmy Villar                            | PO Box 227 Geismar, LA 707340227 | 2254735106 (WF)     | Radiation Safety Officer for          |
| Jimmy Villar             | Jimmy Villar                            | PO Box 227 Geismar, LA 707340227 | Jimmy_Villar@oxy.ca | Radiation Safety Officer for          |
| Related Organizations:   | Name                                    | Address                          | Phone (Type)        | Relationship                          |
| Occidental Chemical Corp | Occidental Chemical Corp                | PO Box 227 Geismar, LA 707340227 | 2254742605 (WP)     | UST Billing Party for                 |
| Occidental Chemical Corp | Occidental Chemical Corp                | PO Box 227 Geismar, LA 707340227 | 2254742632 (WF)     | UST Billing Party for                 |
| Occidental Chemical Corp | Occidental Chemical Corp                | PO Box 227 Geismar, LA 707340227 | 2254742605 (WP)     | Operates                              |
| Occidental Chemical Corp | Occidental Chemical Corp                | PO Box 227 Geismar, LA 707340227 | 2254742632 (WF)     | Operates                              |
| Occidental Chemical Corp | Occidental Chemical Corp                | PO Box 227 Geismar, LA 707340227 | 2254742605 (WP)     | Water Billing Party for               |
| Occidental Chemical Corp | Occidental Chemical Corp                | PO Box 227 Geismar, LA 707340227 | 2254742632 (WF)     | Water Billing Party for               |
| Occidental Chemical Corp | Occidental Chemical Corp                | PO Box 227 Geismar, LA 707340227 | 2254742605 (WP)     | Radiation License Billing Party for   |
| Occidental Chemical Corp | Occidental Chemical Corp                | PO Box 227 Geismar, LA 707340227 | 2254742632 (WF)     | Radiation License Billing Party for   |
| Occidental Chemical Corp | Occidental Chemical Corp                | PO Box 227 Geismar, LA 707340227 | 2254742605 (WP)     | Air Billing Party for                 |
| Occidental Chemical Corp | Occidental Chemical Corp                | PO Box 227 Geismar, LA 707340227 | 2254742632 (WF)     | Air Billing Party for                 |
| Occidental Chemical Corp | Occidental Chemical Corp                | PO Box 227 Geismar, LA 707340227 | 2254742605 (WP)     | Owns                                  |
| Occidental Chemical Corp | Occidental Chemical Corp                | PO Box 227 Geismar, LA 707340227 | 2254742632 (WF)     | Owns                                  |
| SIC Codes:               | 2869, Industrial organic chemicals, nec |                                  |                     |                                       |

Note: This report entitled "General Information" contains a summary of facility-level information contained in LDEC's TEMPO database for this facility and is not considered a part of the permit. Please review the information contained in this document for accuracy and completeness. If any changes are required or if you have questions regarding this document, you may contact Mr. David Ferrand, Environmental Assistance Division, at (225) 219-3247 or email your changes to facupdate@la.gov.

**Louisiana Department of Environmental Quality (LDEQ)**  
**Office of Environmental Services**

**STATEMENT OF BASIS**

**F-1 Hex Furnace**  
**Occidental Chemical Corporation – Geismar Plant**  
**Geismar, Ascension Parish, Louisiana**  
**Agency Interest Number: 3400**  
**Activity Number: PER20030002**  
**Draft Permit 2922-V0**

**I. APPLICANT**

**Company:**  
Occidental Chemical Corporation – Geismar Plant  
P.O. Box 227  
Geismar, LA 70734-0227

**Facility:**  
F-1 Hex Furnace  
8318 Ashland Road  
Geismar, Ascension Parish, Louisiana 70734  
Approximate UTM coordinates are 693.68 kilometers East and 3341.09 kilometers North, Zone 15

**II. FACILITY AND CURRENT PERMIT STATUS**

Occidental Chemical Corporation (Occidental) owns and operates an industrial organic and inorganic chemicals manufacturing facility (formerly the Vulcan Chemicals – Geismar Plant (Vulcan)) in Geismar, Ascension Parish, Louisiana. On June 7, 2005, Basic Chemicals Company, L.L.C. (Basic), a wholly owned subsidiary of Occidental Chemical Corporation, acquired ownership of the Vulcan facility. On January 1, 2007, the name of the Geismar Plant was changed from Basic Chemicals Company, L.L.C. – Geismar Plant to Occidental Chemical Corporation – Geismar Plant. Occidental currently operates the Geismar Plant under Consolidated Part 70 Air Permit No. 0180-00011-V3 issued to Vulcan on April 19, 2001, Part 70 Air Permit No. 2821-V0 for the Steam Generating Unit issued to Vulcan on December 12, 2002, and Part 70 Air Permit No. 2923-V0 for the Offsites Area issued to Basic on November 20, 2006. The consolidated permit includes permitting requirements for the Caustic/Chlorine Process Units, the F-1 Hex Furnace, and the Chlorinated Organic Units.

This is the Part 70 operating permit renewal for the F-1 Hex Furnace. The F-1 Hex Furnace also operates under Hazardous Waste Permit No. LAD092681824 issued on November 24, 2005.

Consolidated Permit No. 0180-00011-V0 was issued to Vulcan on October 4, 1998. As required by LAC 33:III.507.E.4, Vulcan submitted four timely and complete renewal applications and Emission Inventory Questionnaires (EIQs) on April 4, 2003, six months prior to the expiration of the permit. Four renewal applications were submitted because Vulcan requested a separation of the Consolidated Part 70 Air Permit into four individual unit specific Part 70 air permits, one each for the Caustic/Chlorine Process Units, the F-1 Hex Furnace, the Offsites Area, and the Chlorinated Organic Units.

**F-1 Hex Furnace**  
**Occidental Chemical Corporation – Geismar Plant**  
**Geismar, Ascension Parish, Louisiana**  
**Agency Interest Number: 3400**  
**Activity Number: PER20030002**  
**Draft Permit 2922-V0**

Basic Chemicals Company, LLC acquired ownership and operation of the Vulcan facility on June 7, 2005. Basic submitted four revised renewal applications and Emission Inventory Questionnaires (EIQs), dated March 31, 2006, to reflect the recent ownership change and to incorporate updates to the renewal applications submitted by Vulcan on April 4, 2003. Each application addresses the renewal of the respective unit's Part 70 permitting requirements. This permit renewal addresses the permitting requirements for the F-1 Hex Furnace.

### **III. PROPOSED PERMIT / PROJECT INFORMATION:**

#### **Proposed Permit**

A permit application and Emission Inventory Questionnaire were submitted by Basic on March 31, 2006 requesting a renewal of the Part 70 operating permit requirements for the F-1 Hex Furnace.

A notice requesting public comment on the proposed permit will be published in *The Advocate*, Baton Rouge, Louisiana, and in the *Gonzales Weekly*, Gonzales, Louisiana. The proposed permit will also be sent to the US EPA Region VI.

In this Part 70 air permit renewal, Occidental proposes to:

- Separate the Consolidated Part 70 Air Permit (Permit No. 0180-00011-V3 issued on April 19, 2001) into four separate Part 70 air permits (Caustic/Chlorine Process Units, F-1 Hex Furnace, Offsites Area, and Chlorinated Organic Units). This permit addresses the permitting requirements for the F-1 Hex Furnace.
- Update emission source calculation methodologies and site-specific source data.
- Propose changes to allow the Vent Collection Drum, D-35, formerly part of the MCF-II Unit which has been decommissioned, to route the EDC Units' MCI Reactor Vent to the F-1 Hex Furnace during outages of the F-2 Oxy Vent Furnace, the primary vent control device.
- Update the facility's General Condition XVII and Insignificant Activities Lists.
- Modify and/or remove some State-Only Specific Conditions contained in the current Title V air permit. State-Only Specific Condition Nos. 1, 2, 4, 8, 10, and 16 of the current Title V air permit were not included in this permit since they are currently contained in and enforced in the Hazardous Waste Permit, Permit No. LAD092681824 issued on November 24, 1995. State-Only Specific Condition No. 9 was modified by removing the following operating conditions which are either contained in the Hazardous Waste Permit or are unjustifiable, and leaving the ones not identical or not listed in the Hazardous Waste Permit: Combined Feed, Total Chlorine Feed, Total Bromine Feed, Stack CO Concentration, Stack O<sub>2</sub> Concentration, T-10 Scrubber Bottoms Temperature, and Hex Reboiler Temperature. State-Only Specific Condition No. 12 was modified by removing items 1 through 6 and 8 (which are contained in the Hazardous Waste Permit) and leaving item 7 (which is not listed in the Hazardous Waste Permit). Specific Condition No. 13 was modified by requiring an analysis of the waste feed to the furnace annually, as per the Hazardous Waste Permit, instead of semi-annually as required in the current Title V air permit; no justification was found for requiring the semi-annual analysis.

**F-1 Hex Furnace**  
**Occidental Chemical Corporation – Geismar Plant**  
**Geismar, Ascension Parish, Louisiana**  
**Agency Interest Number: 3400**  
**Activity Number: PER20030002**  
**Draft Permit 2922-V0**

- Incorporate emissions into this permit from Compliance Order AE-CN-05-0237 issued to Basic on March 13, 2006. The Compliance Order addressed emissions which were not included in the initial Part 70 operating permit issued to Vulcan on October 5, 1998.

This permit does not include any modifications to the F-1 Hex Furnace, with the exception of using the Vent Collection Drum, D-35, to route the EDC Units' MCI Reactor Vent to the F-1 Hex Furnace during outages of the F-2 Oxy Vent Furnace, the primary vent control device. Because there is no significant increase in emissions associated with the proposed project, a Prevention of Significant Deterioration (PSD) Review and a Non-Attainment New Source Review (NNSR) are not required for this permit.

#### **Process Description**

The F-1 Hex Furnace is used to combust liquid and gaseous waste streams. It is also used as a secondary or backup vent control device for the F-2 Oxy Vent Furnace which is permitted in the Chlorinated Organic Units Title V air permit. The liquid waste streams include heavy ends from chlorinated solvent production, contaminated chloro-solvent products, phased organics from the Groundwater Treatment System, and contaminated vent recovery compressor oil. The gaseous vent streams include process vents from the production of chlorinated solvents and chlorine, and vents from product storage and loading.

The streams are routed to the furnace's combustion chamber along with natural gas, air, and steam to complete the combustion process. After leaving the combustion chamber, the combustion products are routed to a waste-heat boiler. From the boiler, the gas is quenched and scrubbed in a series of towers to remove metals (iron), acid gas (HCl), and residual chlorine. After passing through the final scrubber, the vent stream is discharged to the atmosphere.

#### **Permitted Air Emissions**

The changes in emissions below are due to the reconciliation of emissions where necessary based on updated emission factors, calculation methodologies, etc., and to the inclusion of emissions from Compliance Order AE-CN-05-0237. Estimated changes in permitted emissions from the F-1 Hex Furnace in tons per year are as follows:

| Pollutant        | Permitted Before | Permitted After | Permitted Change |
|------------------|------------------|-----------------|------------------|
| PM <sub>10</sub> | 2.50             | 3.36            | + 0.86           |
| SO <sub>2</sub>  | < 0.01           | 0.04            | + 0.04           |
| NO <sub>x</sub>  | 32.01            | 10.53           | - 21.48          |
| CO               | 0.70             | 0.31            | - 0.39           |
| VOC*             | 0.93             | 0.39            | - 0.54           |

\* See VOC speciation below

**F-1 Hex Furnace**  
**Occidental Chemical Corporation – Geismar Plant**  
**Geismar, Ascension Parish, Louisiana**  
**Agency Interest Number: 3400**  
**Activity Number: PER20030002**  
**Draft Permit 2922-V0**

| VOC TAP Speciation (TPY)<br>LAC 33:III.Chapter 51 Regulated VOC TAPs |        |        |        |
|--|--------|--------|--------|
| Pollutant  | Before | After  | Change |
| 1,1,2,2-Tetrachloroethane  | < 0.01 | < 0.01 | -      |
| 1,1,2-Trichloroethane  | < 0.01 | < 0.01 | -      |
| 1,2-Dibromoethane  | -      | < 0.01 | < 0.01 |
| 1,1-Dichloroethane   | < 0.01 | < 0.01 | -      |
| 1,2-Dichloroethane   | < 0.01 | 0.01   | + 0.01 |
| 1,2-Dichloropropane  | < 0.01 | < 0.01 | -      |
| 1,3-Dichloropropylene  | < 0.01 | -      | < 0.01 |
| Benzene  | -      | < 0.01 | < 0.01 |
| Carbon Tetrachloride   | < 0.01 | < 0.01 | -      |
| Chlorobenzene  | 0.02   | -      | - 0.02 |
| Chloroethane   | < 0.01 | < 0.01 | -      |
| Chloroform   | < 0.01 | < 0.01 | -      |
| Formaldehyde   | -      | < 0.01 | < 0.01 |
| Hexachloro-1,3-Butadiene   | < 0.01 | < 0.01 | -      |
| Hexachlorobenzene  | < 0.01 | < 0.01 | -      |
| Hexachloroethane   | -      | < 0.01 | < 0.01 |
| Hexane (N-)  | -      | 0.12   | + 0.12 |
| Methanol   | -      | < 0.01 | < 0.01 |
| Methyl Chloride  | < 0.01 | 0.01   | + 0.01 |
| Naphthalene  | -      | < 0.01 | < 0.01 |
| Trichloroethylene  | < 0.01 | < 0.01 | -      |
| Vinyl Chloride   | < 0.01 | < 0.01 | -      |
| Vinylidene Chloride  | < 0.01 | < 0.01 | -      |
| Total VOC TAPs   | 0.02   | 0.16   | + 0.14 |
| Other VOCs   |        |        | 0.23   |

| Non-VOC TAP Speciation (TPY)<br>LAC 33:III.Chapter 51 Regulated Non-VOC TAPs |        |        |        |
|--|--------|--------|--------|
| Pollutant  | Before | After  | Change |
| 1,1,1-Trichloroethane  | < 0.01 | < 0.01 | -      |
| Antimony   | < 0.01 | < 0.01 | -      |
| Arsenic  | < 0.01 | < 0.01 | -      |
| Barium   | 0.04   | < 0.01 | - 0.04 |
| Beryllium  | 0.01   | < 0.01 | - 0.01 |

**F-1 Hex Furnace**  
**Occidental Chemical Corporation – Geismar Plant**  
**Geismar, Ascension Parish, Louisiana**  
**Agency Interest Number: 3400**  
**Activity Number: PER20030002**  
**Draft Permit 2922-V0**

| Non-VOC TAP Speciation (TPY)<br>LAC 33:III.Chapter 51 Regulated Non-VOC TAPS |             |             |               |
|--|-------------|-------------|---------------|
| Pollutant  | Before      | After       | Change        |
| Cadmium  | 0.01        | < 0.01      | - 0.01        |
| Chlorine   | 2.18        | 2.27        | + 0.09        |
| Chromium   | 0.02        | 0.07        | + 0.05        |
| Cobalt Compounds   | -           | < 0.01      | < 0.01        |
| Copper   | -           | 0.09        | + 0.09        |
| Dichloromethane  | 0.03        | < 0.01      | - 0.03        |
| Hexachlorocyclopentadiene  | -           | < 0.01      | < 0.01        |
| Hydrochloric Acid  | 5.24        | 6.30        | + 1.06        |
| Lead Compounds   | 0.02        | 0.13        | + 0.11        |
| Manganese  | -           | 0.20        | + 0.20        |
| Mercury  | < 0.01      | 0.08        | + 0.08        |
| Nickel   | -           | 0.13        | + 0.13        |
| Polychlorinated Biphenyls  | -           | < 0.01      | < 0.01        |
| Selenium   | -           | < 0.01      | < 0.01        |
| Tetrachloroethylene  | < 0.01      | 0.01        | + 0.01        |
| Zinc   | -           | 0.07        | + 0.07        |
| <b>Total Non-VOC TAPs</b>  | <b>7.55</b> | <b>9.35</b> | <b>+ 1.80</b> |

### Regulatory Applicability

This permit was reviewed for compliance with the Louisiana Part 70 operating permit program, the Louisiana Air Quality Regulations, New Source Performance Standards (NSPS), and National Emission Standards for Hazardous Air Pollutants (NESHAP). Prevention of Significant Deterioration (PSD) and Non-Attainment New Source Review (NNSR) regulations do not apply.

### MACT Requirements

The Occidental - Geismar Plant is a major source of toxic air pollutants (TAPs) pursuant to LAC 33:III.Chapter 51. The owner or operator of any major source that emits or is permitted to emit a Class I or Class II TAP at a rate equal to or greater than the minimum emission rate (MER) listed for that pollutant in LAC 33:III.5112, Table 51.1, shall control emissions of such TAPs to a degree that constitutes Maximum Achievable Control Technology (MACT). The following compounds are either Class I or Class II compounds, and are, facility-wide, emitted above their respective MERs: 1,1,2-trichloroethane, 1,2-dichloroethane, carbon tetrachloride, chlorobenzene, chloroform, dichloromethane, hexachloro-1,3-butadiene, tetrachloroethylene, and vinyl chloride. Sources in the F-1 Hex Furnace emitting these pollutants must comply with MACT requirements. Emissions of chlorine, hydrochloric acid, and sulfuric acid (Class III TAPs), facility-wide, are also above their respective MERs, but MACT is not required for Class III or Supplemental TAPs. Compliance with all applicable provisions of LAC 33:III.Chapter 51 is required.

**F-1 Hex Furnace**  
**Occidental Chemical Corporation – Geismar Plant**  
**Geismar, Ascension Parish, Louisiana**  
**Agency Interest Number: 3400**  
**Activity Number: PER20030002**  
**Draft Permit 2922-V0**

**Air Modeling Analysis**

| Pollutant | Time Period | Calculated Maximum Ground Level Concentration | Louisiana Air Quality Standard (NAAQS) |
|-----------|-------------|---|--|
| N/A       |             |   |  |

Impact on air quality from emissions from the F-1 Hex Furnace is below the National Ambient Air Quality Standards (NAAQS) and the Louisiana Ambient Air Standards (AAS) beyond industrial property.

**General Condition XVII Activities**

The facility will comply with the applicable General Condition XVII Activities emissions as required by the operating permit rule. However, General Condition XVII Activities are not subject to testing, monitoring, reporting or recordkeeping requirements. For a list of approved General Condition XVII Activities, refer to Section VIII of the draft Part 70 permit.

**Insignificant Activities**

All Insignificant Activities are authorized under LAC 33:III.501.B.5. For a list of approved Insignificant Activities, refer to Section IX of the draft Part 70 permit.

**IV. PERMIT SHIELD**

<N/A>

**V. PERIODIC MONITORING**

Periodic monitoring is required for certain sources in this permit. All periodic monitoring shall be conducted in accordance with state and federal regulations, as applicable. See the Facility Specific Requirements of the draft Part 70 permit for monitoring requirements.

**VI. APPLICABILITY AND EXEMPTIONS OF SELECTED SUBJECT ITEMS**

| ID No: | Description   | Requirement   | Notes   |
|--------|---------------|---|---|
| F1-UW  | F-1 Unit Wide | 40 CFR 61 Subpart FF<br>National Emission Standard for Benzene Waste Operations | <b>EXEMPT.</b><br>The F-1 Unit does not generate benzene containing waste. An initial report as required per 40 CFR 61.357(a) was submitted. There are no additional requirements for this Subpart unless process changes at this unit are made that generate benzene containing waste.<br>[40 CFR 61.340(b)] |

**F-1 Hex Furnace**  
**Occidental Chemical Corporation – Geismar Plant**  
**Geismar, Ascension Parish, Louisiana**  
**Agency Interest Number: 3400**  
**Activity Number: PER20030002**  
**Draft Permit 2922-V0**

| ID No: | Description     | Requirement  | Notes  |
|--------|-----------------|--|--|
| 100577 | F-1 Hex Furnace | LAC 33:III.1503.C<br>Emission Standards for Sulfur Dioxide Emission Limitations  | <b>EXEMPT.</b><br>Units emitting less than 250 tons per year (TPY) of sulfur compounds measured as sulfur dioxide may be exempted from the 2,000 ppm(v) limitation by the administrative authority. [LAC 33:III.1503.C]<br><br>The F-1 Hex Furnace emits 0.04 TPY of sulfur dioxide.   |
|        |                 | LAC 33:III.Chapter 22 Control of Emissions of Nitrogen Oxides (NO <sub>x</sub> )   | <b>EXEMPT.</b><br>Boilers and industrial furnaces treating hazardous waste and regulated under LAC 33:V.Chapter 30 or 40 CFR part 264, 265, or 266, including halogen acid furnaces and sulfuric acid regeneration furnaces are exempt from the requirements of this rule. [LAC 33:III.2201.C.19]  |
|        |                 | 40 CFR 60 Subpart CCCC Standards of Performance for Commercial and Industrial Solid Waste Incineration Units for Which Construction Is Commenced After November 30, 1999 or for Which Modification or Reconstruction Is Commenced on or After June 1, 2001 | <b>DOES NOT APPLY.</b><br>Source does not meet the definition of a commercial and industrial solid waste incinerator (CISWI) as defined in 40 CFR 60.2265. Source is a halogen acid furnace which acts as a chemical recovery unit as defined in 40 CFR 60.2020(n)(6). Source is also regulated by 40 CFR 63 Subpart EEE. [40 CFR 60.2010(c)], [40 CFR 60.2555(g)(2)], [40 CFR 60.2555(n)] |
|        |                 | 40 CFR 60 Subpart DDDD Emissions Guidelines and Compliance Times for Commercial and Industrial Solid Waste Incineration Units that Commenced Construction On or Before November 30, 1999   | <b>DOES NOT APPLY.</b><br>Source does not meet the definition of a commercial and industrial solid waste incinerator (CISWI) as defined in 40 CFR 60.2875. Source is a halogen acid furnace which acts as a chemical recovery unit as defined in 40 CFR 60.2555(n)(6). Source is also regulated by 40 CFR 63 Subpart EEE. [40 CFR 60.2500], [40 CFR 60.2555(g)(2)], [40 CFR 60.2555(n)]    |

**F-1 Hex Furnace**  
**Occidental Chemical Corporation – Geismar Plant**  
**Geismar, Ascension Parish, Louisiana**  
**Agency Interest Number: 3400**  
**Activity Number: PER20030002**  
**Draft Permit 2922-V0**

| ID No:                       | Description     | Requirement   | Notes  |
|------------------------------|-----------------|---|--|
| <i>(continued)</i><br>100577 | F-1 Hex Furnace | 40 CFR 61 Subpart F<br>National Emission Standard<br>for Vinyl Chloride   | <b>EXEMPT.</b><br>The F-1 Hex Furnace is a backup control device for the F-2 Oxy Vent Furnace which is the primary control device for vents from the EDC Plant which are subject to 40 CFR 61 Subpart F. However, due to overlap with 40 CFR 63 Subpart G (HON), the owner or operator of any Group 1 process vent subject to this Subpart and to 40 CFR 63 Subpart G shall comply only with the provisions of 40 CFR 63 Subpart G.<br>[40 CFR 63.110(f)(1)] |
|                              |                 | 40 CFR 63 Subpart G<br>National Emission Standards<br>for Organic Hazardous Air<br>Pollutants (HON) from the<br>Synthetic Organic Chemical<br>Manufacturing Industry<br>(SOCMI) for Process Vents,<br>Storage Vessels, Transfer<br>Operations, and Wastewater | Reduce emissions of total organic hazardous air pollutants by 98 weight percent or to a concentration of 20 parts per million by volume, which is less stringent. [40 CFR 63.113(a)(2)]  |
|                              |                 |   | Reduce emissions of hydrogen halides and halogens by 95% or shall reduce the outlet mass of total hydrogen halides and halogens to less than 0.45 kilograms per hour, whichever is less stringent, using a scrubber or other halogen reduction device.<br>[40 CFR 63.113(c)(1)(ii)]  |
|                              |                 |   | For Group 1 storage vessels, reduce hazardous air pollutant emissions by operating and maintaining a closed vent system and control device meeting the specifications of 40 CFR 63.119(e)]. [40 CFR 63.119(a)(1)]  |
|                              |                 |   | For each Group 1 transfer rack, reduce emissions of total organic hazardous air pollutants by 98 weight-percent or to an exit concentration of 20 parts per million by volume (ppmv), whichever is less stringent.<br>[40 CFR 63.126(b)(1)]  |

**F-1 Hex Furnace**  
**Occidental Chemical Corporation – Geismar Plant**  
**Geismar, Ascension Parish, Louisiana**  
**Agency Interest Number: 3400**  
**Activity Number: PER20030002**  
**Draft Permit 2922-V0**

| ID No:                              | Description     | Requirement   | Notes   |
|-------------------------------------|-----------------|---|---|
| <i>(continued)</i><br><b>100577</b> | F-1 Hex Furnace | 40 CFR 63 Subpart EEE<br>NESHAP from Hazardous Waste Combustors | The F-1 Hex Furnace is a halogen acid furnace and shall comply with the requirements of 40 CFR 63.1218 by the compliance date, which is currently October 14, 2008.   |
|                                     |                 | 40 CFR 63 Subpart GGGGG<br>NESHAP: Site Remediation             | Reduce emissions of total HAPs or TOC (minus methane and ethane) by 95% by weight or limit the concentration of total HAP or TOC (minus methane and ethane) to 20 ppmv or less on a dry basis corrected to 3 percent oxygen.<br>[40 CFR 63.7925(d)] |

## VII. STREAMLINED REQUIREMENTS

| Unit or Plant Site | Programs Being Streamlined | Stream Applicability | Overall Most Stringent Program |
|--------------------|----------------------------|----------------------|--------------------------------|
| N/A                |                            |                      |                                |

**F-1 Hex Furnace**  
**Occidental Chemical Corporation – Geismar Plant**  
**Geismar, Ascension Parish, Louisiana**  
**Agency Interest Number: 3400**  
**Activity Number: PER20030002**  
**Draft Permit 2922-V0**

**VIII. Glossary**

**Best Available Control Technologies (BACT)** - An emissions limitation (including a visible emission standard) based on the maximum degree of reduction for each pollutant subject to regulation under this part which would be emitted from any proposed major stationary source or major modification which the administrative authority, on a case-by-case basis, taking into account energy, environmental, and economic impacts and other costs, determines is achievable for such source or modification through application of production processes or available methods, systems, and techniques, including fuel cleaning or treatment or innovative fuel combustion techniques for control of such pollutant.

**CAM** - Compliance Assurance Monitoring rule – A federal air regulation under 40 CFR Part 64

**Carbon Monoxide (CO)** – A colorless, odorless gas, which is an oxide of carbon.

**Grandfathered Status** - Those facilities that were under actual construction or operation as of June 19, 1969, the signature date of the original Clean Air Act. These facilities are not required to obtain a permit. Facilities that are subject to Part 70 (Title V) requirements lose grandfathered status and must apply for a permit.

**Hydrogen Disulfide (H<sub>2</sub>S)** - A colorless inflammable gas having the characteristic odor of rotten eggs, and found in many mineral springs. It is produced by the action of acids on metallic sulfides, and is an important chemical reagent.

**Maximum Achievable Control Technology (MACT)** - The maximum degree of reduction in emissions of each air pollutant subject to LAC 33:III.Chapter 51 (including a prohibition on such emissions, where achievable) that the administrative authority, upon review of submitted MACT compliance plans and other relevant information and taking into consideration the cost of achieving such emission reduction, as well as any non-air-quality health and environmental impacts and energy requirements, determines is achievable through application of measures, processes, methods, systems, or techniques.

**NESHAP** - National Emission Standards for Hazardous Air Pollutants – Toxic air emission standards for specific types of facilities, as outlined in 40 CFR Parts 61 through 63

**Nitrogen Oxides (NO<sub>x</sub>)** - Compounds whose molecules consists of nitrogen and oxygen.

**Nonattainment New Source Review (NNSR)** - A New Source Review permitting program for major sources in geographic areas that do not meet the National Ambient Air Quality Standards (NAAQS) at 40 CFR Part 50. Nonattainment NSR is designed to ensure that emissions associated with new or modified sources will be regulated with the goal of improving ambient air quality.

**NSPS** - New Source Performance Standards – Air emission standards for specific types of facilities, as outlined in 40 CFR Part 60

**Organic Compound** - Any compound of carbon and another element. Examples: Methane (CH<sub>4</sub>), Ethane (C<sub>2</sub>H<sub>6</sub>), Carbon Disulfide (CS<sub>2</sub>)

**Part 70 Operating Permit**- Also referred to as a Title V permit, required for major sources as defined in 40 CFR 70 and LAC 33:III.507. Major sources include, but are not limited to, sources which have the potential

**F-1 Hex Furnace**  
**Occidental Chemical Corporation – Geismar Plant**  
**Geismar, Ascension Parish, Louisiana**  
**Agency Interest Number: 3400**  
**Activity Number: PER20030002**  
**Draft Permit 2922-V0**

to emit:  $\geq 10$  tons per year of any toxic air pollutant;  $\geq 25$  tons of total toxic air pollutants; and  $\geq 100$  tons per year of regulated pollutants (unless regulated solely under 112(r) of the Clean Air Act) (25 tons per year for sources in non-attainment parishes).

**PM<sub>10</sub>** - Particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers as measured by the method in Title 40, Code of Federal Regulations, Part 50, Appendix J.

**Potential to Emit (PTE)** - The maximum capacity of a stationary source to emit any air pollutant under its physical and operational design.

**Prevention of Significant Deterioration (PSD)** – A New Source Review permitting program for major sources in geographic areas that meet the National Ambient Air Quality Standards (NAAQS) at 40 CFR Part 50. PSD requirements are designed to ensure that the air quality in attainment areas will not degrade.

**Sulfur Dioxide (SO<sub>2</sub>)** – An oxide of sulphur.

**TAP** - Toxic Air Pollutant (LDEQ acronym for air pollutants regulated under LAC 33 Part III, Chapter 51, Tables 1 through 3

**Title V permit** – See Part 70 Operating Permit.

**Volatile Organic Compound (VOC)** - Any organic compound which participates in atmospheric photochemical reactions; that is, any organic compound other than those which the administrator of the U.S. Environmental Protection Agency designates as having negligible photochemical reactivity.

## Worksheet for Technical Review of Working Draft of Proposed Permit

|                |                                 |                              |                         |                    |             |
|----------------|---------------------------------|------------------------------|-------------------------|--------------------|-------------|
| Company Name:  | Occidental Chemical Corporation | AI #:                        | 3400                    | TEMPO Activity No: | PER20030002 |
| Facility Name: | Geismar Plant                   | Remarks Submitted by:        | ENVIRON                 |                    |             |
| Permit Writer: | Kyle Prestenbach                | Permit Writer Email address: | Kyle.Prestenbach@LA.GOV |                    |             |

### **Instructions**

**Permit Reference** – Indicate specific portion(s) of the permit to which the remark relates (i.e. “Specific Condition 120”, or “Section II Air Permits Briefing Sheet”, etc.).

**Remarks** – Explain the basis for each remark. Provide regulatory citations where possible. If the remark is made due to an error or omission in the permit application this must be noted and the revised information **must be submitted**. Revised information may be submitted separately from this worksheet. Please be aware that revised information must be submitted in writing and certified by the Responsible Official, and if necessary, by a Professional Engineer licensed in Louisiana. *Please Note:* New or additional equipment, processes or operating conditions not addressed in the original permit application will be addressed on a case-by-case basis. The Department reserves the right to address such changes in a separate permit action.

**DEQ Response – DO NOT COMPLETE THIS SECTION.** This section will be completed by Air Permits Division of DEQ, included in the proposed permit package and made available for public review during any required public comment period.

- Additional rows may be added as necessary.

- Completed Form shall be emailed to the Permit writer in MS Word compatible format within the deadline specified in the email notification.

| Permit Reference  | Remarks  | Air Permits Division Response (for official use only)  |
|---|--|--|
| Permit Cover Letter                                       | Change addressee from “Mr. Thomas F. Feeney” to “Mr. Wade Allenan” and “Basic Chemicals Company, LLC” to “Occidental Chemical Corporation”. This comment is due to new information. Please note, the name change from “Basic Chemicals Company, LLC” to “Occidental Chemical Corporation” is a global change required throughout the entire permit. Further, where the term “Basic” is used for “Basic Chemicals Company, LLC”, the term should be changed to “OxyChem” throughout the permit. | The corrections addressed in this remark were applied to the draft permit cover letter. However, since Basic Chemicals Company (Basic) owned and operated the Geismar Plant for a period of time under that name, Basic will still be used in the permit where applicable; i.e. in the Background and Origin Sections of the permit to denote ownership, submittals, etc. Otherwise, “Basic” will be replaced elsewhere with “Occidental”. |
| Air Permit Briefing Sheet, Section III- Description, p. 4 | Revise pollutant Total VOC TAPs “After” from “0.14” to “0.16” and “Change” from “0.12” to “0.14”. Revise Other VOC (TPY) from “0.27” to “0.23”. This remark is due to an error in the draft permit.  | The VOC TAPs “After”, VOC TAPs “Change”, and “Other VOCs” totals were revised as requested to correct errors in the draft permit.  |

| Permit Reference   | Remarks   | Air Permits Division Response (for official use only)  |  |
|--|---|--|--|
| Air Permit Briefing Sheet, Section X-Applicable Louisiana and Federal Air Requirements, p. 9 | Revise 40 CFR 61 Subpart F designation for EQT299 F-1 Hex Furnace from "1" to "2". This remark is due to an error in the draft permit since this source is exempt due to the overlap provisions of 40 CFR 63.110(f)(1) and (2).   | LDEQ is in agreement with this remark. A "2" was placed in the table in Section X of the draft permit and an explanation was placed in Section XI of the draft permit to document the exemption claimed.   | Since the F-1 Hex Furnace is subject to both the requirements of 40 CFR 61 Subpart F and 40 CFR 63 Subpart G, the furnace is required to comply only with the requirements of 40 CFR 63 Subpart G (per 40 CFR 63.110(f)(1)).   |
| Air Permit Briefing Sheet, State-Only Specific Conditions, p. 14                             | State Only Specific Condition No. 2-E: The existing Hazardous Waste Permit, No. LAD092681824, requires total suspended particulate (TSP) to be less than 0.04 grains per dry standard cubic foot corrected to 7% oxygen. Because PM <sub>10</sub> is a subset of TSP, the requirement in the Hazardous Waste Permit, No. LAD092681824 is more stringent than Specific Condition No. 2-E. For this reason and because Specific Condition No. 2-E would be a redundant requirement, Specific Condition No. 2-E should be deleted. This remark is due to a request in the application. | Hazardous Waste Permit LAD092681824 requires that particulate matter (PM) in excess of 0.04 grains per dry standard cubic foot (scf) not be emitted. Since the Hazardous Waste permit requirement is more stringent than the PM requirement in the Title V air permit, the LDEQ Air Permits Division agrees with this remark and shall remove the requirement from the Title V air permit.   | The CPT plan dated May 26, 2005 for the upcoming HWC MACT CPT submitted to LDEQ by Basic indicates a maximum combustion air flow rate of 4,000 scfm. LDEQ's files on the F-1 Furnace air blower indicate a maximum design rate of 4,100 scfm at 70 inches water pressure. Since the Hazardous Waste Permit specifies a minimum combustion air flow rate and no maximum rate, and since the combustion air flow limit in the current Title V air permit is accurate based on the information available, the 4,000 scfm max rate will remain in the Title V air permit until results from the next performance test prove otherwise. |
| Air Permit Briefing Sheet, State-Only Specific Conditions, p. 14                             | State Only Specific Condition No. 2-F: The "Hex Feed Alone" and "GWP Feed Alone" parameters are limited to 3.79 gpm and 2.29 gpm respectively. OxyChem requests that these limits are further specified by adding the text to the listed limits, "based on a 5-minute rolling average". This will make the limits consistent with the existing Hazardous Waste Permit, No. LAD092681824, requirement, A.5(a).   | OxyChem requests that the "Combustion Air Flow" parameter limit of 4,000 scfm Max be deleted from the permit. A higher combustion air flow ensures more oxygen and more efficient combustion therefore, there is no reason to limit the combustion air flow to a maximum. If however the LDEQ believes this limit is necessary, OxyChem requests that the maximum combustion air flow be based on a recent combustion air flow test when the furnace was shutdown for maintenance. During this test, the blower delivered approximately 5,400 scfm, but because the furnace was shutdown at the time of the test and there was no backpressure, OxyChem request that the Max combustion air flow limit be increased to 5,000 scfm. | The Hazardous Waste Permit does not set a minimum or maximum temperature on the Hex Reboiler bottoms temperature. It does require that the Hex Reboiler bottoms temperature be monitored and logged. If the temperature varies more than 50 degrees F from routine operations, a sample of the Hex feed shall be collected and   |

| Permit Reference | Remarks  |
|------------------|--|
|                  | <p>temperature is less than the corresponding limit in the existing Hazardous Waste Permit, No. LAD092681824, requirement, A.8(g). If a HEX Reboiler Temperature is necessary in the air permit, OxyChem requests that the limit be made consistent with the corresponding limit in the Hazardous Waste Permit.</p> <p>OxyChem requests that the "Stack Vinyl Chloride Concentration (3-hr avg)" parameter limit of 10 ppm Max be deleted from the permit based on the following. As previously stated in the application, this requirement is derived from the Vinyl Chloride NESHAP 40 CFR 61.61 and is not necessary because any exhaust gas stream containing vinyl chloride is designated as a HON Group 1 process vent. Thus, the F-1 Hex Furnace is exempt from the Vinyl Chloride NESHAP and only the control and monitoring requirements of the HON are applicable per the overlap provisions in the HON (40 CFR 63.110(h)(1) &amp; (2)). Furthermore, to remain consistent with recently proposed rule revisions, this requirement is not necessary since Louisiana recently proposed revisions to LAC 33:III:Chapter 51 (Proposed Rule December 20, 2006) which state, "Compliance with an applicable federal standard promulgated by the US EPA in 40 CFR part 63 shall constitute compliance with this Subsection for emissions of toxic air pollutants." As such, OxyChem requests that the specified 10 ppm Max limit for vinyl chloride be removed. However, if this requirement is not removed from the permit, OxyChem requests that it is noted that a vinyl chloride monitor is not required per verbal agreements between LDEQ and at the time, Vulcan Chemical Company.</p> <p>These remarks are due to requests in the application.</p> |

| Permit Reference  | Air Permits Division Response (for official use only)  |  |
|---|--|--|
| Remarks   |  |  |
| Air Permit Briefing Sheet, State-Only Specific Conditions, p. 15          | <p>State Only Specific Condition No. 2-I: OxyChem requests that this condition be deleted from the permit since the RCRA permit already requires an annual waste analysis which show metal content in waste feeds to be very low with little variability. If the condition is not deleted, OxyChem requests that the condition be revised to read as follows, "Permittee shall analyze each waste feed annually for suspected LATAP, based on process knowledge (including toxic metals) and use these results to quantify and speciate the toxic metal emissions. A report covering the feed analysis and toxic emissions shall be submitted by February 15 for the preceding year. Records shall be maintained on site and maintained on site and available for inspection by the Surveillance Division". This will make the condition consistent with the existing Hazardous Waste Permit, No. LAD092681824, requirement, A.2(f). This remark is due to a request in the application.</p> | <p>The Hazardous Waste Permit requires annual testing of each waste feed (including toxic metals). Since no justification could be found for requiring semi-annual testing of the waste feeds as required in the Title V air permit, the requirement will be reworded as follows: "Permittee shall analyze each waste feed annually for suspected LATAP (including toxic metals) and use these results to quantify and speciate the toxic metal emissions. A report covering the feed analysis and toxic emissions shall be submitted by February 15 for the preceding year. Records shall be maintained on site and available for inspection by the Surveillance Division."</p> |
| Statement of Basis, All Sections, pp. 1 - 10                              | <p>Change "Basic Chemicals Company, LLC" to "Occidental Chemical Corporation". This comment is due to new information. Please note, the name change from "Basic Chemicals Company, LLC" to "Occidental Chemical Corporation" is a global change required throughout the entire permit. Further, where the term "Basic" is used for "Basic Chemicals Company, LLC", the term should be changed to "OxyChem" throughout the permit.</p>  | <p>The corrections addressed in this remark were applied to the Statement of Basis where applicable. However, since Basic Chemicals Company (Basic) owned and operated the Geismar Plant for a period of time under that name, Basic will still be used in the permit where applicable; i.e. Section II to denote ownership, submittals, etc. Otherwise, "Basic" will be replaced elsewhere with "Occidental".</p>   |
| Statement of Basis, Section III-Proposed Permit/Project Information, P. 4 | <p>Revise Pollutant Total VOC TAPs "After" from "0.14" to "0.16" and "Change" from "0.12" to "0.14". Revise Other VOC (TPY) from "0.27" to "0.23". This remark is due to an error in the draft permit.</p>   | <p>The VOC TAPs "After", VOC TAPs "Change", and "Other VOCs" totals were revised as requested to correct errors in the draft permit.</p>   |
| General Information, p. 1   | <p>Under Related People, replace the following names with Lynn Fink: Raymond Derrickson, Seth Haywood, Don Lierman, and Amy Sierra. Also, replace Tim Kinchen with Jimmy Villar. This remark is due to an error in the draft permit.</p>   | <p>The report entitled "General Information" contains a summary of facility-level information contained in LDEQ's TEMPO database for this facility and is not considered a part of the permit. If any changes are required, please contact Mr. David Ferrand, Environmental Assistance Division, at (225) 219-3247 or email your changes to facupdate@la.gov.</p>  |
| Emission Rates for TAP/HAP & Other Pollutants, p. 6                       | <p>Revise the Vinyl chloride max lb/hr emission rate for EQT 299 from &lt; 0.001 to 0.001. This remark is due to an error in the draft permit.</p>   | <p>The Vinyl chloride max lb/hr emission rate was corrected.</p>   |
| Specific Requirements, p. 4   | <p>Revise the sentence in specific requirement 74 to read as follows: "Determine compliance with 40 CFR 63.126 using the methods and procedures specified in 40 CFR 63.128(a) through (h), as applicable. Subpart G. [40 CFR 63.128]" This remark provides clarification that not all procedures specified in (a) through (h) are applicable.</p>  | <p>The words, "as applicable", were added to Specific Requirement # 74 as requested for clarity.</p>   |

| Permit Reference            | Remarks  | Air Permits Division Response (for official use only)  |
|-----------------------------|--|--|
| Specific Requirements, p. 5 | Remove Toluene, Xylene, m/p-Xylene, and o-Xylene from specific requirement 88 since these volatile organic compounds are not HRVOC. This remark is due to an error in the draft permit.  | Specific Requirement # 88 is standard language for facilities emitting HRVOCs in the Baton Rouge Non-Attainment Area and in the surrounding parishes and is included in all Part 70 air permits for facilities emitting HRVOCs in these areas. According to Permits Guidance Document 04-01 (dated January 21, 2004) for Speciation of VOCs in permits, HRVOC compounds (acetaldhyde, butanes (all isomers), ethylene, propylene, toluene, xylene (all isomers), and isoprene) shall be speciated in all air permits, variances, and exemptions for facilities in the parishes of Ascension, East Baton Rouge, Iberville, Livingston, West Baton Rouge, St. Charles, St. Helena, St. James, St. John the Baptist, Point Coupee, East Feliciana, and West Feliciana. This requirement will remain as written in the draft permit. |
| Specific Requirements, p. 5 | Remove the term "leak-free facility" from specific requirement 89. The identified term is ambiguous and as written, may be unreasonably applied to facility operations due to the lack of specificity. This remark is due to the use of an ambiguous term in the draft permit. | Specific Requirement # 89 is standard language for facilities emitting HRVOCs in the Baton Rouge Non-Attainment Area and in the surrounding Parishes and is included in all Part 70 air permits for facilities emitting HRVOCs in these areas. This requirement will remain as written in the draft permit.  |